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LOAD MANAGEMENT FIELD TRIALS ANALYSIS - UTILITY PROGRAMS A USER'S GUIDE

Report No 86-269-K

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ABSTRACT

A pilot project on load management was undertaken by the Rates and Strategic Conservation Department. The project involved various experiments in controlling and monitoring load in Oshawa and Scarborough. Data was collected in order to analyze the results of the different experiments. This user's guide describes the purpose and the use of the various utility programs, written by the Rates and Strategic Conservation Department and the Statistics Unit of the Operations Research Department, which help in the analysis of the data.

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To Dr. D. Mills
Director of Research

LOAD MANAGEMENT FIELD TRIALS ANALYSIS
UTILITY PROGRAMS: A USER'S GUIDE

Automatic management of customer loads using computer technology could lead to the reduction of electrical power demand during peak demand periods. Both monitoring and control of loads are basic to any such management system and can be implemented by a computer system with data collection facilities. Ontario Hydro undertook a pilot project to assess the costs and benefits of an automated load management system with those features.

The first load management system was installed in Oshawa and the computer which monitors and controls loads was placed in the Bell Canada office. The second load management system was installed in Scarborough and the computer which monitors and controls loads was placed in the Scarborough Public Utilities Commission Office. A computer system was also installed in Ontario Hydro's Head Office. Its job was to collect and process the data from the Oshawa and Scarborough computers, along with sending out schedules for the different experimental controls on loads.

The data was collected every ten minutes from individual residential and commercial dwellings. Included were such load types as main service entrance, hot water heating entrance, and electric furnace entrance. At the beginning of each day, a file was created containing all the data collected for the previous day. At the beginning of each month, a file was created containing a summary of the data collected for the previous month. In order to help analyze the data stored in these files, a series of utility programs were written by the Product Rates and Strategic Conservation Department and the Operations Research Department.

The purpose of this manual is to provide assistance to the user who wishes to run one of the utility programs. Appendix A of this document (page 3) explains the special terminology used in the subsequent Appendices. Appendix B (page 7) provides a brief description of what each utility program does. Appendix C (page 16) describes in greater detail each program and the required user input.

The utility programs were written in FORTRAN and are stored on DIGITAL PDP 11/70 installed in the Rates & Strategic Conservation Department. Any questions regarding the use of the utility programs should be directed to Mr. Steve Mastoris of the Rates & Strategic Conversation Department.

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APPENDIX A

TERMINOLOGY

This Appendix explains the special terminology used in Appendices B and C. It is broken down into two sections. The first section defines what account numbers are, and the second section describes the different types of data files used as input and/or output to the utility programs.

Account Numbers

The PDP 11/70 computer divides each disk into accounts. Each account is assigned a two number representation, which is referred to as an account number. When referring to a file in a specific account the account number in square brackets must be included as part of the file name. For example, suppose there is a file called TEST in account [1,1]. To refer to this file [1,1] TEST is used.

The computer can have more than one disk available at any one time. Each disk is given a name, which is made up of two letters followed by one digit and a colon. The two letters refer to the type of disk being used, and the digit is assigned to distinguish different disks of the same type. Therefore, if the file called TEST in account [1,1] was located on disk DR1:, to refer to it DR1:[1,1]TEST is used.

Types of Data Files Used

Input Data Files

Many of the data file types are used strictly as input to the utility programs. These data files contained the raw data collected from Oshawa and Scarborough in different formats.

MDB102 - Contains the raw data from Oshawa, exactly as received at Head Office, prior to 1983. The files have been named MDB102yy.ddd, where "yy" is the year and "ddd" is the julian day.

MDB101 - Contains the raw data from Oshawa, exactly as received at Head Office, from 1983 to completion. The files have been named MDB101yy.ddd, where "yy" is the year and "ddd" is the julian day.

SCADSD - Contains the raw data from Scarborough, exactly as received at Head Office. The files have been named SCADSDyy.ddd, where "yy" is the year and "ddd" is the julian day.

OSHTEMP - Contains the data from the MDB101 or MDB102 files, rearranged in a more suitable format. The files have been named OSHTEMPyy.ddd, where "yy" is the year and "ddd" is the julian day.

SCATEMP - Contains the data from the SCADSD files, rearranged in a more suitable format. The files have been named SCATEMPyy.ddd, where "yy" is the year and "ddd" is the julian day.

LMDATA - Contains the data from an OSHTEMP and a SCATEMP file combined (if both were available). Missing values have been interpolated where possible and validation has been performed. The files have been named LMDATAyy.ddd, where "yy" is the year and "ddd" is the julian day.

OSHDATA - Similar to an LMDATA file, except there is no Scarborough data. This file was used before data collection from Scarborough began.

OSHMET - Contains weather data extracted from the Oshawa data files. There is one record for each day of the year. The files have been named OSHMET.yy, where "yy" is the year.

SCAMET - Contains weather data extracted from the Scarborough data files. There is one record for each day of the year. The files have been named SCAMET.yy, where "yy" is the year.

LMERRS - daily - Contains the error information extracted from both the Oshawa and Scarborough data files. The files have been named LMERRSyy.ddd, where "yy" is the year and "ddd" is the julian day.

LMERRS - monthly - Contains all the LMERRS daily files concatinated together for one month. The files have been named LMERRSyy.mmm, where "yy"is the year and "mmm" is the month. ("Jan", "Feb", "Dec").

LMSUM - daily - Contains a summarized version of the information stored in the LMDATA file. The files have been named LMSUMyy.ddd, where "yy" is the year, and "ddd" is the julian day.

LMSUM - monthly - Contains all the LMSUM daily files merged together and rearranged into a different format. The files have been named LMSUMyy.mmm, where "yy" is the year, and "mmm" is the month.

Input/Output Data Files

Many data files are created by extracting data from the files described in the previous section. In some cases, the data

required further processing. Therefore, a data file which was created by one utility program may become input to another utility program.

EXT-SPSS- The main source of this file was originally output from the extraction sub-system. However, many utility programs have been written using this type of file as input and/or output. The file structure was developed so that the files could become input to the program SPSS.

EXT-DAY - The only source of this file is output from the extraction sub-system. It is used only as input to other utility programs. It contains information extracted from an LMDATA file.

EXT-MON - The only source of this file is output from the extraction sub-system. It is used only as input to other utility programs. It contains information extracted from an LMSUM monthly file.

LPT - This type of file is used mainly as input to the different plotting programs. However, it is also used as input and/or output for many utility programs.

LMLOAD - This is a special file type used only by UTL028 and UTL029. It contains statistics about all load types found in an LMDATA file.

APPENDIX B

A BRIEF DESCRIPTION OF EACH UTILITY PROGRAM

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UTL000 - Reads an LMERRS daily file and produces a detailed error report for each SMCT number given by the user.

UTL001 - Reads an OSHTEMP file that is incorrectly sorted, and sorts it into proper order.

UTL002 - Reads an OSHMET file and extracts for one julian day, data which includes temperature and wind speed statistics. This information is sent to an LPT type file and/or the line printer.

ULT003 - This utility is obsolete.

ULT004 - Reads an LMDATA file and for a given time period checks to see if the hot water heating was controlled. A file of SMCT numbers is supplied by the user. This utility assumes the control bits of the record bit map have been set during control periods.

UTL005 - Reads 1 or 2 LPT type files and adds, subtracts, multiplies, or divides one load type from another. The result is sent to an LPT type file.

UTL006 - Reads on LPT type file and smooths the data using exclusive subsets. The result is sent to a new LPT type file.

UTL007 - Reads an LPT type file and smooths the data using intersecting subsets. The result is sent to a new LPT type file.

UTL008 - This utility is obsolete.

UTL009 - Reads the SMCT numbers from the data base system SGA named LMS2 and places them into the retrieval system common area named OSHC1.

UTL010 - Reads an LMERRS daily file and produces a "TRANSPONDER RETURN SUMMARY" report using the SMCT numbers supplied by the user. The report may be sent to the line printer, an output file, or the terminal screen. The utility will also create an LPT type file which contains information similar to the summary report.

UTL011 - Reads an LMERRS daily file and produces a report on the distribution of the consecutive time slots with error messages, using the SMCT numbers supplied by the user. The report is sent to a new LPT type file.

UTL012 - Reads LPT type files, concatinates them and creates one large LPT type file. The time stamps are modified in an appropriate manner.

UTL013 - Reads an LMDATA file and produces a report on the amount of time it took after a water heating control period for the water heater's upper element to switch on. The program uses only the SMCT numbers supplied by the user, and assumes the control bits of the record bit map have been set during control periods.

UTL014 - Reads a month's worth of LMERRS daily files and creates an LMERRS monthly file.

UTL015 - Reads an LPT type file and changes the columns of data into percentages. A different divisor is used on each column. The result is sent to a new LPT type file.

UTL016 - Reads an OSHTEMP file and for each SMCT number given by the user, produces a listing of the data found. The listings are either sent to the line printer or displayed on the terminal screen.

UTL017 - Reads a month's worth of LMSUM daily files and groups all the data together for each SMCT numbers. It then creates an LMSUM monthly file using the grouped data.

UTL018 - This utility is obsolete.

UTL019 - Reads an LMSUM monthly file, and for the SMCT numbers supplied by the user, creates one or more different types of reports. The reports are sent to the line printer.

UTL020 - This utility is obsolete.

UTL021 - This utility is obsolete.

UTL022 - Reads an OSHTEMP file and verifies its organization by checking to see if the records are found in the correct order.

UTL023 - Updates the SGA named OSHC2, which is used in the validation of the LMDATA file.

UTL024 - Reads an LMERRS file and using the SMCT numbers supplied by the user, counts the number of busy line errors for each time slot. The results are sent to an LPT type file.

UTL025 - This utility is obsolete.

UTL026 - Reads a day's worth of MDB101 files and creates an OSHTEMP file.

UTL027 - Reads the customer data base and updates the heat loss and heated area values for the CID numbers supplied by the user.

UTL028 - Reads an LMDATA file and creates an LMLOAD file, which contains statistics about all the load types found in the LMDATA file.

UTL029 - Reads an LMLOAD file which has been sorted correctly and then sends the information stored in the file to the line printer.

UTL030 - Reads an LMDATA file and validates the data. The results are sent to a new file named UTL030.DAT.

UTL031 - Reads in the file UTL030.DAT, which was created by UTL030, and sends a report to the line printer.

UTL032 - Reads an LMSUM daily file and sends to the line printer all the data found, for one SMCT number supplied by the user.

UTL033 - Reads an EXT-DAY file and for each time slot, sums all the data with the same load type. The load types to be used are supplied by the user and the output is sent to a new LPT type file.

UTL034 - Reads in the validation table file named LDTYP.TAB, reformats it, and sends it to the line printer.

UTL035 - Reads an EXT-DAY file and for each time slot, averages all the data with the same load type. The load types to be used are supplied by the user and the output is sent to a new LPT type file.

UTL036 - This utility is obsolete.

UTL037 - Reads an LMSUM monthly file, and for each SMCT number supplied by the user, creates a report called "CUSTOMER ENERGY CONSUMPTION BREAKDOWN" and sends it to the line printer, and/or creates a new LPT type file containing similar information.

UTL038 - Reads an LMERRS monthly file and breaks it down into a month's worth of LMERRS daily files.

UTL039 - Creates an unlabeled IBM compatible tape in EBCDIC format.

UTL040 - Creates a labeled or unlabeled IBM compatible tape in EBCDIC format.

UTL041 - Reads an EXT-MON file and averages the data depending on the options chosen. The output is sent to a new LPT type file.

UTL042 - Reads an EXT-DAY file and for each SMCT number supplied by the user, requests which data points are wanted. The program then sums or averages the selected data points that have the same load type. The output is sent to a new LPT type file.

UTL043 - Reads an LMSUM monthly file and rearranges it into a month's worth of LMSUM daily files.

UTL044 - Creates and initializes an OSHMET file for the year specified by the user.

UTL045 - This utility is obsolete.

UTL046 - This utility is obsolete.

UTL047 - Reads an EXT-SPSS file and merges it with weather data found in the appropriate OSHMET file. The result is sent to a new EXT-SPSS file.

UTL048 - Reads in an OSHDATA file, reformats it, and creates an LMDATA file.

UTL049 - Reads an LMSUM daily file, and for each SMCT number supplied by the user, creates a report on the data found in the file, and sends it to the line printer.

UTL050 - Reads two EXT-SPSS files, merges them together, and creates one EXT-SPSS file.

UTL051 - Reads an EXT-SPSS file, merges the data of SMCT numbers that have the same CID number, and creates a new EXT-SPSS file.

UTL052 - Reads two LMDATA files, and for each SMCT number supplied by the user, sums over a period of time load types 32 and 31, given a starting time in the first file and a stopping time in the second file. The results are sent to the line printer.

UTL053 - This utility is obsolete.

UTL054 - Reads an LMDATA file, and for each SMCT number supplied by the users, finds the sum or maximum value of one load type. The program then creates a distribution curve of the sums or maximum values and sends it to a new LPT type file.

UTL055 - Reads any formatted data file, reformats it, and creates a new LPT type file.

UTL056 - Reads in data from the terminal and creates a new LPT type file.

UTL057 - Reads an EXT-SPSS file and if the user requests, averages the data, which has a given minimum sum, across the time slots for one load type and sends the results to a new LPT type file. It will also create a new EXT-SPSS file which contains the original data, for the SMCT numbers which had the minimum sum for the load type in question.

UTL058 - This utility is obsolete.

UTL059 - Reads the validation table file named LDTYP.TAB and modifies it and/or sends a formatted listing of the file to the line printer or terminal screen.

UTL060 - Reads an LPT type file, creates a plot using its data, and sends it to the line printer.

UTL061 - Reads one or more LPT type files and for each load type, averages the data across the time slots. The output is sent to a new LPT type file.

UTL062 - Reads an LPT type file or EXT-SPSS file, and adds and/or deletes a column of data from the file. The program also allows the user to change the time or day stamps. The output is sent to a new LPT type file or EXT-SPSS file.

UTL063 - Reads an LPT type file or EXT-SPSS file, modifies the data in one or more of nine different ways, and then creates a new LPT type file or EXT-SPSS file. Input and output files do not have to be the same type.

UTL064 - Reads an EXT-SPSS file, and for each load type given by the user, throws out all data greater than the maximum value given and less than the minimum value given. The output is sent to a new EXT-SPSS file with the same name as the input file.

UTL065 - Reads an EXT-SPSS file, and extracts the data for the SMCT numbers supplied by the user. The extracted data is sent to a new EXT-SPSS file, and the leftover data is sent to another EXT-SPSS file if the user requests.

UTL066 - Reads an EXT-SPSS file, and for one load type averages the data, and finds 90, 95, or 99% confidence intervals for each time slot. The results are sent to a new LPT type file.

UTL067 - Reads an SCAMET file and extracts for one julian day, data which includes temperature, wind speed and wind direction statistics. This information is sent to an LPT type file and/or the line printer.

UTL068 - Reads an LPT type file or an EXT-SPSS file, and for one load type averages the data and finds 90, 95, or 99% confidence intervals for each time slot. The results sent to a new LPT type file.

UTL069 - Reads an LPT type file, and for a given load type and a given timer interval, sums the data and divides the sum by a factor of 6. The result is printed on the terminal screen.

UTL070 - Reads an OSHMET file and extracts the average daily temperature and wind speed, for a range of days provided by the user. The program also calculates the degree days. The results are sent to a new LPT type file.

UTL071 - Reads an EXT-SPSS file and for each SMCT number and each column of data, finds the sum or average, for a given time interval. The results are sent to a new file with one record for each SMCT number.

UTL072 - Reads an EXT-MON file, reformats it, and creates an EXT-SPSS file.

UTL073 - Reads an LPT type file or EXT-SPSS file, modifies the data in one of eight different ways, and then creates a new LPT type file or EXT-SPSS file. Input and output files do not have to be the same type.

UTL074 - Reads a file of SMCT numbers and the customer data base files, and creates a new file containing the CID numbers of the SMCT numbers.

UTL075 - Reads on or two EXT-SPSS files which have SMCT numbers of CID numbers, merges the data with the same CID number, and creates a new EXT-SPSS file with just the load types supplied by the user.

UTL076 - Reads two LPT type or EXT-SPSS files, merges the data with the same time or day stamp, and sends output to a new LPT type or EXT-SPSS file.

UTL077 - Reads an EXT-SPSS file and for each load type given by the user, averages across the time slots, all columns of data which have a sum larger than or equal to a lowest acceptable sum. The output is sent to a new LPT type file, if the user requests. The program will also create, if desired, a new EXT-SPSS file which contains all data from the input file, except columns of data which do not have the lowest acceptable sum.

UTL078 - This utility is obsolete.

UTL079 - Reads an LMERRS daily or monthly file, and calculate for each error type and each time slot, the total number of occurrences and/or percentage of occurrence. The results will be sent to the terminal screen, line printer or new file.

UTL080 - Reads one or more LMDATA files, and for each SMCT number given and for one accumulator load type given, will find the maximum value in each LMDATA file. The results will be sent to a new EXT-SPSS file.

UTL081 - Reads one or more LMDATA files, and for each SMCT number given and for one accumulator load type given, calculate the sum, for each LMDATA file. The results will be sent to a new EXT-SPSS file.

UTL082 - Reads one or more LMDATA files, and for each SMCT number given and for one accumulator load type given, finds the number of time slots that have data, the number of time slots that have data that passed validation, and the number of time slots that have

data that did not pass validation, for each LMDATA file. The results will be sent to a new EXT-SPSS file.

UTL083 - Reads an EXT-SPSS file, and for each SMCT number given by the user, adds, subtracts, multiplies, or divides each data value of one given load type by a given factor. The results are sent to a new EXT-SPSS file with the same name as the input file.

UTL084 - Reads one or more files created by UTL071, creates a distribution curve for one column of data, and sends it to a new LPT type file.

UTL085 - Reads an LMDATA file, and for a given control period and a given list of SMCT numbers, counts the number of time slots controlled during control period, number of time slots not controlled during control period, number of time slots that were suppose to be controlled, and the number of time slots controlled outside control period. The results are sent to a new file with one record for each SMCT number.

UTL086 - Reads a file created by UTL085, sums the column of data which has the number of time slots controlled during control period, sums the column of data which has the number of time slots that were suppose to be controlled, and sends the percentage of time slots during the control period that was actually controlled to the terminal screen.

UTL087 - Reads an LMDATA file, and for each SMCT number given and for each accumulator and analog load type found, calculates the number of time slots thrown out by validation, the number of time slots not thrown out by validation, and the number of time slots with some data. The results are sent to a new file with one record for each load type of each SMCT number.

UTL088 - Reads a file created by UTL087, and for one load type given, extracts all records with the load type and sends them to a new output file.

UTL089 - Reads an LMERRS monthly file, and for each day found, creates an EXT-SPSS file which contains the total number of errors in each time slot and the percentage of errors in each time slot. The program also creates an EXT-SPSS file which contains the average total number of errors in each time slot and the percentage of errors for the entire month in each time slot.

APPENDIX C

DETAILED DISCUSSION OF EACH UTILITY PROGRAM

This Appendix is broken down into one section for each utility program. Each section has two parts. The first part contains a more detailed description of the utility program than offered in Appendic B. The second part will explain how to answer the questions asked by the utility program.

UTL000

Description

UTL000 requires from the user the name of the LMERRS daily file and the SMCT numbers that error reports are desired. The utility program assumes that the user gives the SMCT numbers in ascending order. If the SMCT number is found in the LMERRS daily file, a detailed report is sent to the line printer. If the SMCT number is not found in the file, a message is sent to the line printer stating this fact.

Questions Asked

(1) "TYPE IN NAME OF ERROR FILE WANTED"

The utility program requires the full name of the LMERRS daily file, including the name of the disk and the account number.

(2) "TYPE IN SMCTS, ONE PER LINE,
TYPE IN ASCENDING ORDER,
TYPE IN NINE TO END".

The utility program requires the SMCT numbers to be used. Type in the lowest SMCT number and then press RETURN. Continue in ascending order until all SMCT numbers have been entered. Then type a "9" and press RETURN.

UTL001

Description

UTL001 requires from the user the name of the OSHTEMP file that is mis-sorted. Occasionally, the first on last slot of data for one or more SMCT numbers have been placed with the data of different SMCT numbers. This utility will attempt to sort all the data into the proper order. If it succeeds, all the data for each SMCT number will be grouped together and a new OSHTEMP file with the same name will be created.

Questions Asked

(1) "TYPE IN NAME OF OSHTEMP FILE"

The utility program requires the full name of the OSHTEMP file, including the name of the disk and the account number.

UTL002

Description

ULT002 requires from the user the julian day and year of the weather data that is desired. The utility assumes that the corresponding OSHMET file is found on disk DRO:, in account [100,10]. If the user requests, the utility will create a report, which includes temperature and wind speed statistics, and send it to the line printer and/or a new LPT type file which will be found on disk DRO:, in account [100,10] and named AOSHMET.ddd, where "ddd" is the julian day.

Questions Asked

(1) "TYPE IN JULIAN DAY"

The utility program requires the three digit julian number (001-366).

(2) "TYPE IN YEAR (XX)"

The utility program requires the two digit year stamp. For example, if year wanted is 1982, then type 82.

(3) "DO YOU WANT A REPORT PRINTED (Y/N)?"

The utility program is asking whether you want the report to be sent to the line printer. Type "Y" for yes or "N" for no.

(4) "DO YOU WANT A PLOTTING FILE PRINTED (Y/N)?"

The utility program is asking whether you want the report to be sent to a new LPT type file. Type "Y" for yes or "N" or no.

UTL003

This utility program is no longer available to the user, therefore, it has been termed obsolete.

UTL004

Description

UTL004 requires from the user the period of time in which control of the hot water heating system was thought to have taken place. The utility also requires the name of the LMDATA file and the name of the file which holds the SMCT numbers to be used. The utility will create a summary of how many SMCT numbers were controlled in each time slot during the control period. This summary will be sent to the line printer, the terminal or placed in a new file, depending on what the user requests. The utility will also send additional information to the terminal. For each SMCT number, a message will be sent describing what the utility found in the LMDATA file. Also, a report is sent to the terminal, stating the number of SMCT numbers that were controlled, the number that were not controlled, the number that were not found in the LMDATA file, the number that had no good data, the number that had the wrong load types and the number that did not have enough data points.

Questions Asked

(1) "ENTER CONTROL PERIOD (HH, MM, HH, MM)"

The utility program requires two 2 digit numbers for the starting time of the control period and two 2 digit numbers for the stopping time of the control period, all separated by commas. For example, suppose the control period was 10:30 am through 5:00 pm, then type "10,30,17,00".

(2) "ENTER OUTPUT UNIT: TI, LP, OR FI"

The utility program is asking where the user wants the summary described in Section 4.5.1 sent to. Type "TI" to send it to the terminal, type "LP" to send it to the line printer, or type "FI" to place it in a new file.

(3) "ENTER NAME OF OUTPUT FILE"

The utility program only asks for this information if question (2) was answered with "FI". It is asking for the name of a new file to place the summary in.

(4) "ENTER NAME OF LMDATA FILE"

The utility program is asking for the full name of the LMDATA file to be used, including the disk name and account number.

(5) "ENTER NAME OF SMCT FILES"

The utility program is asking for the name of the file that holds the SMCT numbers to be used. The SMCT numbers do not have to be in ascending order. The utility will sort them automatically.

UTL005

Description

UTL005 requires from the user the names of the 1 or 2 LPT type files to be read in and the name of the LPT type file to be created. The utility also requires the two load types which the user wants added, subtracted, multiplied, or divided by. The load type in the new LPT type file will be 01.

Questions Asked

(1) "SELECT FUNCTION A - ADD COLUMNS
S - SUBTRACT FILE 2 FROM FILE 1
M - MULTIPLY FILE 1 BY FILE 2
D - DIVIDE FILE 1 BY FILE 2"

The utility program is asking which option the user desires. If the two load types added together is desired, type "A". If the load type from file 2 subtracted from the load type from file 1 is desired, type "S". If the two load types multiplied together is desired, type "M". If the load type from file 1 divided by the load type from file 2 is desired, type "D".

(2) "ENTER NAME OF 1ST FILE"

The utility program requires the name of the first LPT type file to be read in.

(3) "WHICH DATA TYPE?"

The utility program is asking which load type from the first LPT type file is desired.

(4) "ENTER NAME OF 2ND FILE"

The utility program requires the name of the second LPT type file to be read in. If the two load types desired are in the same LPT type file, simply type in the name of the 1st LPT type file again.

(5) "WHICH DATA TYPE?"

The utility program is asking which load type from the second LPT type file is desired.

(6) "ENTER NAME OF OUTPUT FILE (RESULTS)"

The utility program requires the name of a new LPT type file which the results will be placed in.

UTL006

Description

UTL006 requires from the user the name of the LPT type file to be read in, the name of the LPT type file to be created, and the number of consecutive slots to be placed into each exclusive subset. The utility will average each subset together. For example, suppose the LPT type file to be read in has eight numbers and the number of consecutive slots to be placed into each exclusive subset is 2. Then the LPT type file to be created will have four numbers, the average of the 1st and 2nd number, the average of the 3rd and 4th number, the average of the 5th and 6th number, and the average of the 7th and 8th number.

Questions Asked

(1) "ENTER INPUT FILE NAME"

The utility program requires the name of the LPT type file to be read in.

(2) "ENTER OUTPUT FILE NAME"

The utility program requires the name of the LPT type file to be created.

(3) "ENTER NUMBER OF SLOT PER GROUP (2 to 12)"

The utility program is asking for the number of consecutive slots to be placed into each exclusive subset. The answer must be between 2 and 12, inclusive.

UTL007

Description

ULT007 requires from the user the name of the LPT type file to be read in, the name of the LPT type file to be created, and the number of consecutive slots to be placed into each intersection subset. The utility will average each subset together. For example, suppose the LPT type file to be read in has four numbers, and the number of consecutive slots to be placed into each intersecting subset is 2. Then the LPT type file to be created will have three numbers, the average of the 1st and 2nd number, the average of the 2nd and 3rd number, and the average of the 3rd and 4th number. The program also needs to know which columns of data the user wants processed, and whether the user wants missing values approximated. If missing values are approximated, the next slot of data is used as the approximation.

Questions Asked

(1) "ENTER INPUT FILE NAME"

The utility program requires the name of the LPT type file to be read in.

(2) "ENTER OUTPUT FILE NAME"

The utility program requires the name of the LPT type file to be created.

(3) "ENTER NUMBER OF SLOTS PER GROUP (2 to 18)"

The utility program is asking for the number of consecutive slots to be placed into each intersecting subset. The answer must be between 2 and 18, inclusive.

(4) "PROCESS MISSING VALUES?"

The utility program is asking whether the user wants missing values in the input LPT type file to be approximated. If the input LPT type file does not contain missing values, then type "N". If the input LPT type file does contain missing values, then type "Y".

(5) "ENTER MISSING VALUE"

This question will only be asked if question (4) has been answered "Y". The utility program is asking for the number used in the input LPT type file to represent a missing value.

(6) "SELECT COLUMN TO SMOOTH - 0 = ALL COLUMNS
1 = COLUMN 1
2 = COLUMN 2 K_1
.
.
.
n = COLUMN LT K_{n-1}

The utility program is asking which columns of data the user wants smoothed. The answer must be between "0" and "n", inclusive, where "n" is the number of columns of data in the input LPT type file. If all columns are to be smoothed, then type "0". If one column of data is to be smoothed, then type the column number. The notation, "K_i", where "i" equals "1" through "n-1", represents the load types found in the columns.

UTL008

This utility program is no longer available to the user, therefore it has been termed obsolete.

UTL009

Description

UTL009 is not a utility used directly in the analysis of the Load Management field trials. The program is used only when the data base for one year is being replaced with the data base for another year. It will move the new data base system SGA named LMS2 into the retrieval system common area named OSHC1 and/or will list the contents of the updated OSHC1, at the user's request. If more than 700 SMCT numbers are found in LMS2, then only the first 700 will be moved into OSHC1.

Questions Asked

(1) "LIST OSHC1 CONTENTS (Y/N)"

The utility program is asking whether you want the contents of the retrieval system common area named OSHC1 listed. Type "Y" for yes or "N" for no.

(2) "LOAD REGION (Y/N)"

The utility program is asking whether you want the contents of the data base system SGA named LMS2 moved into the retrieval system common area named OSHC1. Type "Y" for yes or "N" for no.

(3) "ENTER NAME OF CONTROL FILE OR 'CR'".

This part of the utility program is obsolete. Type "CR" always.

(4) "OUTPUT TO <TI/LP>"

This question is only asked if question (1) has been answered "Y". The utility is asking whether to send the listing of OSHC1 to the terminal screen or to the line printer. Type "TI" for terminal screen or "LP" for line printer.

UTL010

Description

UTL010 requires from the user the julian day and year of the LMERRS daily file. The program assumes the file is found on the disk DR1:, in account [100,10]. If the user requests the creation of the LPT type file, the program will place it on the disk DR0:, in account [100,10] and name it AERRPLT.ddd, where "ddd" is the julian day. This file will contain four columns of data. The first column will have the number of busy lines, the second column will have the number of other errors, the third column will have the sum of all errors, and the fourth column will have the percentage of busy lines to sum of SMCT numbers. The SMCT numbers to be used can be inputted three different ways. The first is an input file containing the SMCT numbers, the second is by typing in from the terminal keyboard all the SMCT numbers, and the third is to use all the SMCT numbers found in the LMERRS file.

Questions Asked

(1) "TYPE IN JULIAN DATE OF ERROR FILE WANTED"

The utility program requires the three digit julian number (001-366) of the LMERRS daily file.

(2) "TYPE IN YEAR (80-85)"

The utility program requires the two digit year stamp of the LMERRS daily file. For example, if year wanted is 1982, then type "82".

(3) "DIRECT OUTPUT TO DEVICE <TI, LP, FI>"

The utility program is asking where the user wants the "TRANSPONDER RETURN SUMMARY" report sent to. Type "TI" for terminal screen, "LP" for line printer, or "FI" for an output file.

(4) "ENTER OUTPUT FILE NAME"

This question is only asked if question (3) is answered "FI". The utility program is asking for the name of the output file to be created.

(5) "TYPE IN CORRESPONDING NUMBER OF OPTION WANTED
1. INPUT FILE OF SMCTS TO BE USED
2. ALL SMCTS FROM ERROR FILE TO BE USED
3. TYPE IN SMCT(S) TO BE USED"

The utility program is asking how the user wants to supply the SMCT numbers to be used. Type "1" if an input file of SMCT numbers is available, type "2" if all SMCT numbers from the LMERRS file are to be used, or type "3" if the user wants to type in the SMCT numbers.

(6) "TYPE IN NAME OF INPUT FILE OF SMCTS"

This question is only asked if question(5) is answered "1". The utility program is asking for the name of the input file of SMCT numbers.

(7) "TYPE IN SMCTS, ONE PER LINE
TYPE IN ALL NINES TO END"

The question is only asked if question (5) is answered "3". The utility program is asking for the SMCT numbers to be used. Type in the first SMCT number and press RETURN. Continue until all SMCT numbers have been entered. Then type "9,9,9,9" and press RETURN. The SMCT numbers entered do not have to be in ascending order.

(8) "DO YOU WANT ERROR REPORTS FOR SECTION OF ERROR FILE CORRESPONDING TO OPTION CHOSEN (Y/N)?"

The utility program is asking if the user wants a "TRANSPONDER RETURN SUMMARY" report created. Type "Y" for yes or "N" for no.

(9) "DO YOU WANT A PLOTTING FILE CREATED (Y/N)?"

The utility program is asking if the user wants the LPT type file created. Type "Y" for yes and "N" for no.

(10) "TYPE IN NUMBER OF TRANSPONDERS"

This question is only asked if question (9) is answered "Y". The utility program is asking from the user the number of SMCT numbers being used.

UTL011

Description

UTL011 requires from the user the julian day and year of the LMERRS daily file. The program assumes the file is found on the disk DR1:, in account [100,10]. The LPT type file created will be placed on the disk DR0:, in account [101,1] and named ACONERROR.ddd, where "ddd" is the julian day. This file will contain the number of occurrences for each number of consecutive errors from one to sixteen. The SMCT numbers to be used can be inputted two different ways. The first is an input file containing the SMCT numbers, and the second is to use all the SMCT numbers found in the LMERRS file.

Questions Asked

(1) "TYPE IN JULIAN DATE"

The utility program requires the 3 digit julian number (001-366) of the LMERRS daily file.

(2) "TYPE IN YEAR (XX)"

The utility program requires the 2 digit year stamp of the LMERRS daily file. For example, if year wanted is 1982, then type "82".

(3) "TYPE IN DESIRED OPTION
1. INPUT FILE OF SMCTS TO BE USED
2. ALL SMCTS FROM ERROR FILE"

The utility program is asking how the user wants to supply the SMCT numbers to be used. Type "1", if an input file of SMCT numbers is available, or type "2" if all SMCT numbers from the LMERRS file are to be used.

(4) "ENTER NAME OF SMCT LIST FILE"

This question is only asked if question (3) is answered "1". The utility program is asking for the name of the input file of SMCT numbers.

UTL012

Description

UTL012 requires from the user the names of all the input LPT type files and the name of the output LPT type file. The program will create the output file by concatinating the input files and keeping only the header record of the first file. The program also requires the user to specify whether the time stamps from the input files are in hours or days. If the time stamps are in hours, then for each successive LPT type file read in, they are incremented by 24 more hours. If the time stamps are in days, then for each successive LPT type file read in, they are incremented by the last time stamp of the previous input file.

Questions Asked

(1) "ENTER AN INPUT FILE NAME ('NO' TO FINISH)"

The utility program is asking for the name of the next input LPT type file. If all have been entered, then type "NO".

(2) "ENTER OUTPUT FILE NAME"

The utility program is asking for the name of the LPT type file to be created.

(3) "IS 1ST COLUMN IN HOURS (Y/N)"

The utility program is asking whether the input LPT type files have time stamps in hours or days. If they are in hours, type "Y". If they are in days, type "N".

UTL013

Description

UTL013 requires from the user the name of the LMDATA file and the list of SMCT numbers to be used. The numbers can be inputed 2 different ways. The first is an input file containing the SMCT numbers, and the second is by typing in from the terminal keyboard all the SMCT numbers. The program also requires from the user the destination of the output, in which there are 3 choices. The first choice is the line printer, the second choice is the terminal screen, and the third choice is to create a new file. The utility program reads the LMDATA file and checks for each SMCT number, to see if a control period occurred. When a control period is found, the program checks to see the amount of time it took after the control period had completed for the upper element of the hot water heater to turn on.

Questions Asked

(1) "ENTER OUTPUT UNIT: TI, LP OR FI"

The utility program is asking where to send the output to. If the terminal screen, type "TI". If the line printer, type "LP". If a new file, type "FI".

(2) "ENTER NAME OF OUTPUT FILE"

This question is only asked if question (1) is answered "FI". The utility program is asking for the name of the output file.

(3) "ENTER NAME OF LMDATA FILE"

The utility program is asking for the name of the LMDATA file to be read in.

(4) "ENTER INPUT UNIT: TI OR FI"

The utility program is asking how the user wants to supply the SMCT numbers to be used. If a file of SMCT numbers is available, type "FI". If the user wants to type in the SMCT numbers, type "TI".

(5) "ENTER FILENAME OF SMCT LIST"

This question is only asked if question (4) is answered "FI". The utility program is asking for the name of the input file of SMCT numbers.

(6) "USE <CTRL>Z TO EXIT S,M,C,T>"

This question is only asked if question (4) is answered "TI". The utility program is asking for the SMCT numbers to be used. Type in the first SMCT number and press RETURN. Continue until all SMCT numbers have been entered. Then type "<CTRL>Z". The SMCT numbers do not have to be in ascending order.

UTL014

Description

UTL014 requires from the user the julian day of the first LMERRS daily file in the month, the julian day of the last LMERRS daily file in the month, the year stamp of all the LMERRS daily files, and the name of the LMERRS monthly file to be created. The program assumes that the LMERRS daily files are stored on the disk DR1:, in account [100,10]. The utility simply concatinates all the daily files together. If an LMERRS daily file is missing, the program will just continue with the next one.

Questions Asked

(1) "TYPE IN FIRST JULIAN DATA"

The utility program requires the 3 digit julian number (001-366) of the first LMERRS daily file.

(2) "TYPE IN LAST JULIAN DATA"

The utility program requires the 3 digit julian number (001-366) of the last LMERRS daily file.

(3) "TYPE IN YEAR (XX)"

The utility program requires the 2 digit year stamp of the LMERRS daily files. For example, if year wanted is 1982, then type "82".

(4) "TYPE IN OUTPUT FILE NAME"

The utility program is asking for the name of the LMERRS monthly file to be created.

UTL015

Description

UTL015 requires from the user the name of the input LPT type file and the output LPT type file. The input file is read into the program and is echo printed on the terminal screen if the user requests. The program also requires a divisor for each column of data. Each value in a column of data will be multiplied by 100 and divided by its divisor. An inversion function has been included which will cause the output data to be 100 minus the converted values. This is implemented by giving the negative equivalent when a divisor is inputed. A summary is displayed on the terminal screen which includes the sum and average of each column, and other statistics.

Questions Asked

(1) "ENTER INPUT FILE NAME"

The utility program is asking for the name of the LPT type file to be inputed.

(2) "ENTER OUTPUT FILE NAME"

The utility program is asking for the name of the LPT type file to be created.

(3) "ENTER ALTERNATE DIVISOR OR (CR) FOR LOAD nn DIVSR=xxxxx"

The utility program is asking for the divisor to use when converting the column of data with load type "nn". The user can enter the value wanted or just press RETURN which will give the same result as entering "xxxxx".

(4) "DO YOU WANT TO LIST DATA (Y/N)"

The utility program is asking whether the user wants the input LPT type file to be echo printed on the terminal screen. If yes, type "Y". If no, type "N".

UTL016

Description

UTL016 requires from the user the name of the OSHTEMP file, and the SMCT numbers that listings of data are desired. The utility will send the listings to the line printer or the terminal screen depending on what the user requests. If an SMCT number is not found in the OSHTEMP file, a message is sent to the terminal screen.

Questions Asked

(1) "ENTER NAME OF OSHTEMP FILE"

The utility program is asking for the name of the OSHTEMP file to be read in.

(2) "OUTPUT TO 'TI' OR 'LO'"

The utility program is asking whether to send the output to the terminal screen or the line printer. If terminal screen, type "TI". If line printer, type "LP".

(3) "USE <CTRL>Z TO EXIT S,M,C,T>"

The utility program is asking for the next SMCT number to search the OSHTEMP file to find data for. When no more data is required press <CTRL>Z.

UTL017

Description

UTL017 requires from the user the starting julian day, the ending julian day, and the year of the LMSUM daily files that are to be transformed into an LMSUM monthly file. The utility assumes that the LMSUM daily files are found on disk DR1:, in account [100,10]. The utility does not require that all of the LMSUM daily files be available in order to create the LMSUM monthly file. The utility also requires the name of the LMSUM monthly file to be created.

Questions Asked

(1) "TYPE IN STARTING JULIAN DAY"

The utility program requires the 3 digit julian number (001-366) which corresponds to the first LMSUM daily file of the month. If this file is not available, answer the question assuming it was available.

(2) "TYPE IN ENDING JULIAN DAY"

The utility program requires the 3 digit julian number (001-366) which corresponds to the last LMSUM daily file of the month. If this file is not available, answer the question assuming it was available.

(3) "TYPE IN YEAR (XX)"

The utility program requires the 2 digit year stamp which corresponds to the LMSUM daily files. For example, if the year was 1982, then type "82".

(4) "TYPE IN OUTPUT FILE NAME"

The utility program requires the name of the LMSUM monthly file to be created.

UTL018

This utility program is no longer available to the user, therefore it has been termed obsolete.

UTL019

Description

UTL019 requires from the user the name of the LMSUM monthly file to be read in, and the name of a file that contains the SMCT numbers to be used, in ascending order. The program also requires the user to choose which reports are to be created. The reports include a transponder return summary, two accumulator reports, two analog reports, and three status point reports.

Questions Asked

(1) "TYPE IN NAME OF SMCT FILE"

The utility program requires the name of the file which contains the SMCT numbers to be used in ascending order.

(2) "TYPE IN NAME OF MONTHLY SUMMARY FILE"

The utility program requires the name of the LMSUM monthly file to be read in.

UTL022

Description

UTL022 requires from the user the name of the OSHTEMP file to be checked. The program reads in one block of data at a time. Each record in the block should contain the same SMCT number. If this is not the case, a message is sent to the line printer. UTL001 can be used to correct OSHTEMP files that are organized incorrectly.

Questions Asked

(1) "TYPE IN NAME OF TEMP FILE"

The utility program is asking the user for the name of the OSHTEMP file to be checked.

UTL023

Description

UTL023 assumes that a file is stored on disk DR0:, in account [3,2], named LDTYP.TAB. This file contains all the information needed to update the SGA named OSHC2. This program is only executed after changes in the file LDTYP.TAB have been made.

Questions Asked

No information from the user is needed at execution time.

UTL024

Description

UTL024 requires from the user the name of the LMERRS file to be read in and the name of the LPT type file to be created. The program will check to see how many busy line errors and how many other errors occurred in each time slot. The utility also requires from the user, the SMCT numbers to be checked. This may be accomplished two different ways. The first is by a file of SMCT numbers which can be read in or the second is by typing in all the SMCT numbers using the terminal keyboard. The LPT type file to be created will contain 3 columns of data. The first column will be the number of busy line errors, the second column will be the number of other errors, and the third column will be the total of all errors.

Questions Asked

(1) "ENTER THE NAME OF THE LMERRS FILE"

The utility program requires the name of the LMERRS file to be read in.

(2) "ENTER THE NAME OF THE OUTPUT FILE"

The utility program requires the name of the LPT type file to be created.

(3) "IS THE LIST OF SMCT'S IN A FILE? [Y/N]"

The utility program is asking whether, the SMCT numbers to be used are in a file. If answer is yes, type "Y". If answer is no, type "N".

(4) "USE <CNTL>Z TO EXIT S,M,C,T>"

This question is only asked if question (3) is answered "N". The utility program is asking for the SMCT numbers to be used. Type in first SMCT number and press RETURN. Continue until all SMCT numbers have been entered. Then type <CNTL>Z. The SMCT numbers do not have to be in ascending order.

(5) "ENTER THE FILENAME OF THE SMCT LIST"

This question is only asked if question (3) is answered "Y". The utility program is asking for the name of the file which contains the SMCT numbers to be used.

UTL025

This utility program is no longer available to the user, therefore it has been termed obsolete.

UTL026

Description

UTL026 requires from the user the julian day of the MDB101 files and the name of the disk that they are stored on. The program will read the MDB101 files and rearrange them into one OSHTEMP file. The program assumes the MDB101 files are in account [100,1] and have the name MDB101.ddd, where "ddd" is the julian day. The OSHTEMP file created will be placed on disk DR1:, in account [100,10], and named OSHTEMP.ddd.

Questions Asked

(1) "TYPE IN JULIAN DAY"

The utility program is asking for the 3 digit julian day (001-366) of the MDB101 files.

(2) "ENTER INPUT DEVICE (DR0:, DR1:, DB0:, DB1:)"

The utility program is asking for the 4 character name of the disk on which the MDB101 files are stored.

UTL027

Description

UTL027 requires from the user the CID numbers of the customers to be changed. The program asks for the first CID number and displays the current heat loss and heated area values, on the terminal screen. It then accepts the new values and places them in the data base. The utility then asks for the next CID number and continues.

Questions Asked

(1) "ENTER CUSTOMER CID"

The utility program is asking for the CID number of the next customer to be changed. Type <CNTL>Z when all updates have been completed.

(2) "CID=cccc SMCT=ssss HEAT LOSS=kkkk AREA=yyyy"

The utility program is asking for the new heat loss and heated area values for the customer with CID number "cccc". The current values are "kkkk" and "yyyy". The new values should be typed in as two decimal values separated by a comma. If no change in values is desired, press RETURN.

UTL028

Description

UTL028 requires from the user the julian day and year stamp of the LMDATA file to be read in. The program assumes the LMDATA file is stored on disk DR1:, in account [100,10], and it will place the LMLOAD file on disk DR1:, in account [100,10]. The LMLOAD file will contain for each load type of each SMCT number, the average value, the high value, the low value, etc. The LMLOAD file must be sorted by load type and then by SMCT number, before UTL029 can read it correctly.

Questions Asked

(1) "TYPE IN JULIAN DAY"

The utility program is asking for the 3 digit julian day (001-366) of the LMDATA file.

(2) "TYPE IN YEAR (xx)"

The utility program is asking for the 2 digit year stamp of the LMDATA file. For example, if the year is 1982, then type "82".

UTL029

Description

UTL029 requires from the user the julian day and year stamp of the LMLOAD file to be read in. The program assumes that the file has been sorted by load type and then by SMCT number, and is stored on disk DR1:, in account [100,10]. The LMLOAD file is read in, reformatted, and then sent to the line printer, one record at a time. For each load type, extra statistics are calculated and sent to the line printer.

Questions Asked

(1) "TYPE IN JULIAN DAY"

The utility program is asking for the 3 digit julian day (001-366) of the LMLOAD file.

(2) "TYPE IN YEAR (xx)"

The utility program is asking for the 2 digit year stamp of the LMLOAD file. For example, if the year is 1982, then type "82".

UTL030

Description

UTL030 requires from the user the name of the LMDATA file to be read in. The program assumes the file LDTYP.TAB is stored on disk DR0:, in account [3,2]. The program reads the LMDATA file, and for each SMCT number with an extraction class of one, calculates statistics and writes them in the file UTL030.DAT. The utility places this new file in the account that the user is logged into.

Questions Asked

(1) "ENTER NAME OF LMDATA FILE"

The utility program is asking for the name of the LMDATA file to be read in.

UTL031

Description

UTL031 assumes that UTL030 has been previously executed. The output of UTL030 which was stored in the file UTL030.DAT is read in by this program, reformatted, and then sent to the line printer.

Questions Asked

No information from the user is needed at execution time.

UTL032

Description

UTL032 requires from the user the name of the LMSUM daily file and the SMCT number to be used. The program reads the LMSUM daily file and sends to the line printer any information found for the SMCT number given. If no information is found, a message is sent to the line printer.

Questions Asked

(1) "TYPE IN NAME OF SUMMARY FILE"

The utility program is asking for the name of the LMSUM daily file.

(2) "TYPE IN SMCT"

The utility program is asking for the SMCT number in which data is required of.

UTL033

Description

UTL033 requires from the user the name of the EXT-DAY file to be read in, the name of the LPT type file to be created, and the load types to be used. The EXT-DAY file is read in and the data for each load type is summed across the time slots. The output LPT type file will contain one column of data for each load type that the user requested.

Questions Asked

(1) "ENTER NAME OF EXTRACTION FILE"

The utility program is asking for the name of the EXT-DAY file to be read in.

(2) "ENTER NAME OF PLOT FILE"

The utility program is asking for the name of the LPT type file to be created.

(3) "ENTER DATA TYPE TO BE SUMMED (0=EXIT)"

The utility program is asking for the load types to be placed in the LPT type file. Type in first load type and press RETURN. Continue until all the load types have been entered. Then type "0" and press RETURN.

UTL034

Description

UTL034 assumes that the file LDTYP.TAB is stored on disk DR0:, in account [3,2]. The program reads the file, reformats it, and then sends it to the line printer.

Questions Asked

No information from the user is needed at execution time.

UTL035

Description

UTL035 requires from the user, the name of the EXT-DAY file to be read in, the name of the LPT type file to be created, and the load types to be used. The program also requires a maximum value for each load type. The EXT-DAY file is read in and for each load type, the data less than the maximum value given is averaged across the time slots. The output LPT type file will contain one column of data for each load type that the user requested.

Questions Asked

(1) "ENTER NAME OF EXTRACTION FILE"

The utility program is asking for the name of the EXT-DAY file to be read in.

(2) "ENTER NAME OF PLOT FILE"

The utility program is asking for the name of the LPT type file to be created.

(3) "ENTER DATA TYPE TO BE AVER'D (0=EXIT)"

The utility program is asking for the load types to be placed in the LPT type file. Type in first load type and press RETURN. Continue until all the load types have been entered. Then type "0" and press RETURN.

(4) "ENTER MAXIMUM VALUE FOR THIS TYPE"

The utility program is asking for the maximum value allowed, when averaging the data for the load type just entered.

UTL036

This utility program is no longer available to the user, therefore it has been termed obsolete.

UTL037

Description

UTL037 requires from the user the name of the LMSUM monthly file and the name of a file which contains the SMCT numbers to be used in ascending order. If the user requests, the program will create and send to the line printer, a one page report called "CUSTOMER ENERGY CONSUMPTION BREAKDOWN", for each SMCT number supplied. The program will also create, if the user requests, a new LPT type file containing 3 columns of data, for each SMCT number supplied. The first column of data will be total energy consumption, the second column of data will be consumption by heating system, and the third column of data will be consumption by water heater. The LPT type files will be placed on disk DR0:, in account [100,1] and given the name ASMCTPLT.nnn, where "nnn-1" is the number of LPT type files already created.

Questions Asked

(1) "TYPE IN NAME OF MONTHLY SUMMARY FILE"

The utility program is asking for the name of the LMSUM monthly file to be read in.

(2) "TYPE IN NAME OF SMCT FILE"

The utility program is asking for the name of the file, which contains the SMCT numbers to be used in ascending order.

(3) "CREATE LPT FILES? (Y/N)"

The utility program is asking if the user wants an LPT type file created for each SMCT number supplied. Type "Y" for yes, or type "N" for no.

(4) "CREATE ONE PAGE REPORTS? (Y/N)"

The utility program is asking if the user wants a "CUSTOMER ENERGY CONSUMPTION BREAKDOWN" report sent to the line printer for each SMCT number supplied. Type "Y" for yes, or type "N" for no.

UTL038

Description

UTL038 requires from the user the name of the LMERRS monthly file to be read in and the year stamp to be used when naming the LMERRS daily files. The program reads in the LMERRS monthly file and breaks it down into LMERRS daily files, which are placed on disk DR1:, in account [100,10].

Questions Asked

(1) "TYPE IN INPUT FILE NAME"

The utility program is asking for the name of the LMERRS monthly file to be read in.

(2) "TYPE IN YEAR OF OUTPUT FILES (kk)"

The utility program is asking for the year stamp of the LMERRS daily files to be created. For example, if year is 1982, type "82".

UTL039

Description

UTL039 was designed to create an unlabeled magnetic tape that can be read by the IBM mainframe computer. There is no actual limit to the number of files that can be placed onto the tape. However, the physical length of the tape will decide the number of files. The records of the files will be placed onto the tape with a record length of 133 characters. If the actual size is longer, then they will be truncated.

Questions Asked

(1) "MOUNT MAGNETIC TAPE, THEN ENTER TAPE NUMBER"

The utility program requires the user to physically mount the tape to be used, onto the tape drive, and then type in the tape number of the tape.

(2) "ENTER NUMBER OF FILES TO SKIP FROM LOAD POINT"

The utility program is asking for the number of files that have already been placed onto the magnetic tape. If the tape has not been used previously, type "0".

(3) "ENTER 'I' FOR INPUT OR 'O' FOR OUTPUT"

This option does not exist. Type "O" always.

(4) "ENTER REPORT NAME, EX TO EXIT"

The utility program is asking for the name of the next file that the user wants placed onto the magnetic tape. When all the files have been entered, type "EX" to exit from the program.

UTL040

Description

UTL039 was designed to create a labeled or unlabeled magnetic tape that can be read by the IBM mainframe computer. There is no actual limit to the number of files that can be placed onto the tape. However, the physical length of the tape will decide the number of files. The record length of the data files is not limited to 133 characters as in UTL039. The files will be placed on the tape exactly how they are stored on disk.

Questions Asked

(1) "MOUNT MAGNETIC TAPE, THEN ENTER TAPE NUMBER"

The utility program requires the user to physically mount the tape to be used, onto the tape drive, and then type in the tape number of the tape.

(2) "LABELED TAPE? (Y/N)"

The utility program is asking whether the tape to be created will be labeled or unlabeled. If labeled, type "Y". If unlabeled, type "N".

(3) "ENTER NUMBER OF FILES TO SKIP FROM LOAD POINT"

The utility program is asking for the number of files that have already been placed onto the magnetic tape. If the tape has not been used previously, type "0".

(4) "<I, O, E> FOR INPUT, OUTPUT, EXIT RESPECTIVELY"

This option does not exist. Type "O" always.

(5) "ENTER REPORT NAME, EX TO EXIT"

The utility program is asking for the name of the next file that the user wants placed onto the magnetic tape. When all the files have been entered, type "EX" to exit from the program.

UTL041

Description

UTL041 requires from the user the name of the EXT-MON file to be read in and the name of the LPT type file to be created. The program gives the user a list of options to choose from which include consecutive estimates statistics, error count statistics, accumulator statistics, analog statistics, and status point statistics. The options chosen for this utility should correspond to the options chosen during the execution of the extraction subsystem. The data for all SMCT numbers found in the EXT-MON file is used when the averaging is performed. The results are sent to the LPT type file.

Questions Asked

(1) "TYPE IN INPUT FILE NAME"

The utility program is asking for the name of the EXT-MON file to be read in.

(2) "TYPE IN OUTPUT FILE NAME"

The utility program is asking for the name of the LPT type file to be created.

(3) "TYPE IN OPTION IN EXTSUM FILE
1. CONSECUTIVE ESTIMATES
2. ERROR COUNTS
3. ACCUMULATOR STATS
4. ANALOG STATS
5. STATUS POINT STATS"

The utility program needs to know which option was chosen during the execution of the extraction subsystem.

(4) "TYPE IN DATA TYPE (0=EXIT)
FOR STATUS, TYPE IN -1"

This question is only asked if question (3) is answered "1". The utility program is asking what load types the user wants averaged. Type in first load type and press RETURN. Continue until all load types have been entered. Type in "-1" and press RETURN, if status points are wanted. Finally, type "0" and press RETURN.

(5) "TYPE IN OPTIONS WANTED AVERAGED
1. NUMBER OF GOOD RETURNS
2. NUMBER OF NO RESPONSES
3. NUMBER OF BUSY LINES
4. EXIT"

This question is only asked if question (3) is answered "2". The utility program is asking which error counts are to be averaged. Type in first selection and press RETURN. Continue until all selections have been entered. Then type "Y" and press RETURN.

(6) "TYPE IN OPTION WANTED
1. ACCUMULATOR SUMS
2. ACCUMULATOR AVERAGE 'ON' VALUES"

This question is only asked if question (3) is answered "3". The utility program is asking which type of accumulator statistic was calculated during extraction.

(7) "TYPE IN OPTION WANTED
1. ANALOG AVERAGE 'ON' VALUE
2. ANALOG HIGHEST 'ON' VALUE
3. ANALOG LOWEST 'ON' VALUE
4. ANALOG NUMBER OF 'ONS'"

This question is only asked if question (3) is answered "4". The utility program is asking which type of analog statistic was calculated during extraction.

(8) "TYPE IN DATA TYPE (0=EXIT)"

This question is only asked if question (3) is answered "3" or "4". The utility program is asking what load types the user wants averaged. Type in first load type and press RETURN. Continue until all load types have been entered. Then type "0" and press RETURN.

(9) "TYPE IN OPTIONS WANTED
1. 01 STATE FOR POINTS 3 & 4
2. 10 STATE FOR POINTS 3 & 4
3. 00 STATE FOR POINTS 3 & 4 DURING CONTROL WINDOW
4. NOT 00 STATE FOR POINTS 3 & 4 DURING CONTROL WINDOW
5. 00 STATE FOR POINTS 3 & 4 OUTSIDE CONTROL WINDOW
6. 11 STATE FOR POINTS 1 & 2
7. 10 STATE FOR POINTS 1 & 2
8. 00 STATE FOR POINTS 1 & 2
9. 01 STATE FOR POINTS 1 & 2
10. 1 STATE FOR POINT 1
11. 1 STATE FOR POINT 2

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12.  1 STATE FOR POINT 3
13.  1 STATE FOR POINT 4
14.  1 STATE FOR POINT 5
15.  1 STATE FOR POINT 6
16.  1 STATE FOR POINT 7
17.  1 STATE FOR POINT 8
18.  EXIT"
```

This question is only asked if question (3) is answered "5". The utility program is asking which selections the user wants. Type in first selection and press RETURN. Continue until all selections wanted have been entered. Then type "18" and press RETURN.

UTL042

Description

UTL042 requires from the user the name of the EXT-DAY file to be read in and the name of the LPT type file to be created. The program asks for the load types to be summed or averaged together. The program then asks the user for the first SMCT number and the data points to be used from it. The utility will then ask for the next SMCT number and continue, until all SMCT numbers wanted have been entered. A maximum of 5 SMCT numbers can be entered. The program also asks the user whether summing or averaging of data with the same load type is desired. Once all the information is entered, the program isolates the data points chosen by the user and then for each load type wanted, sums or averages the data across the time slots. The result is sent to a new LPT type file.

Questions Asked

(1) "ENTER NAME OF EXTRACTION (INPUT) FILE"

The utility program is asking for the name of the EXT-DAY file to be read in.

(2) "ENTER NAME OF PLOT (OUTPUT) FILE"

The utility program is asking for the name of the LPT type file to be created.

(3) "ENTER UP TO 4 LOAD TYPES"

The utility program is asking for the load types to be used when summing or averaging the data. Type in load types wanted separated by commas.

(4) "ENTER SMCT (OR '9' TO EXIT)"

The utility program is asking for the next SMCT number to be processed. If all SMCT numbers have been entered, type '9' and press RETURN.

(5) "SELECT DATA POINTS <M1-M6, S1-S8, A1-A8>"

The utility program is asking for the data points to be used for the previously entered SMCT number. Type in data points separated by commas.

(6) "SELECT SUM OR AVERAGE (S/A)"

The utility program is asking whether the user wants data with the same load type summed or averaged. Type "S" for summing or type "A" for averaging.

UTL043

Description

UTL043 requires from the user the name of the LMSUM monthly file. The program reads in the file, rearranges it into a month's worth of LMSUM daily files, and places the new files onto disk DR1:, in account [100,10] and names them LMSUM.ddd, where "ddd" is the julian day.

Questions Asked

(1) "TYPE IN MONTHLY FILE NAME"

The utility program is asking for the name of the LMSUM monthly file to be read in.

UTL044

Description

UTL044 requires from the user the year stamp of the OSHMET file to be created. The program then creates and initializes an OSHMET file, which is placed on disk DR0:, in account [100,10]. It is important to remember, that at the completion of this utility, the OSHMET file contains no actual data.

Questions Asked

(1) "TYPE IN YEAR (xx)"

The utility program is asking for the year stamp of the OSHMET file to be created. For example, if year wanted is 1982, type "82".

UTL045

This utility program is no longer available to the user, therefore it has been termed obsolete.

UTL046

The utility program is no longer available to the user, therefore it has been termed obsolete.

UTL047

Description

UTL047 requires from the user the name of the EXT-SPSS file to be read in, the name of the EXT-SPSS file to be created, and the name of the OSHMET file to be used. If the EXT-SPSS file read in was created by extracting data from an LMDATA file, the program will retreive the different wind speed and temperature readings for that julian day. If the EXT-SPSS file read in was created by extracting data from an LMSUM monthly file, the program will retreive the daily average wind speed and temperature readings for that month. The EXT-SPSS file created will contain all the data found in the EXT-SPSS file read in plus 2 columns of weather data.

Questions Asked

(1) "TYPE IN NAME OF EXT-SPSS INPUT FILE"

The utility program is asking for the name of the EXT-SPSS file to be read in.

(2) "INPUT FILE WAS EXTRACTED FROM

1. DATA FILE
2. SUMMARY FILE"

The utility program is asking whether the EXT-SPSS file to be read in, was extracted from an LMDATA file or an LMSUM monthly file. If LMDATA file, type "1". If LMSUM file, type "2".

(3) "TYPE IN JULIAN DAY"

This question is only asked if question (2) is answered "1". The utility program is asking for the julian day (001-366) of the weather data which is desired.

(4) "TYPE IN FIRST JULIAN DAY"

This question is only asked if question (2) is answered "2". The utility program is asking for the first julian day (001-266) of the month in which weather data is desired.

(5) "TYPE IN NAME OF WEATHER DATA FILE"

The utility program is asking for the name of the OSHMET file which is to be used.

(6) "TYPE IN NAME OF EXT-SPSS OUTPUT FILE"

The utility program is asking for the name of the EXT-SPSS file to be created.

(7) "HOW MANY COLUMNS IN INPUT FILE"

The utility program is asking for the number of columns of data that is found in the EXT-SPSS file which is to be read in. This includes the column of time or day stamps.

(8) "HOW MANY RECORDS PER CASE (INCLUDING HEADER)"

The utility program is asking for the number of rows of data plus a header record that is found for each SMCT number in the EXT-SPSS file.

UTL048

Description

UTL048 requires from the user the name of the OSHDATA file to be read in, and the name of the LMDATA file to be created. The program will read in the OSHDATA file, one record at a time, reformat it into an LMDATA file format, and then send it to the new LMDATA file. It is important to remember that the LMDATA file created by this utility will only contain data collected from the OSHAWA system.

Questions Asked

(1) "ENTER NAME OF OSHDATA FILE"

The utility program is asking for the name of the OSHDATA file to be read in.

(2) "ENTER NAME OF LMDATA FILE"

The utility program is asking for the name of the LMDATA file to be created.

UTL049

Description

UTL049 requires from the user the julian day and year stamp of the LMSUM daily file and the name of the disk which it is stored on. The program assumes that the LMSUM file is stored in account [100,10]. The program also needs the SMCT numbers in which reports are required. This may be accomplished 3 different ways. The first is by reading in a file of SMCT numbers, the second is by using all of the SMCT numbers found in the LMSUM daily file, and the third is by typing in the SMCT numbers using the terminal keyboard. The program will create a report for each SMCT number supplied by the user and send it to the line printer.

Questions Asked

(1) "TYPE INPUT DEVICE NAME <DR1, DB0, DB1>"

The utility program is asking for the name of the disk in which the LMSUM daily file is stored. It is not necessary to type in the colon. For example, if DR1: is wanted, type "DR1".

(2) "TYPE IN JULIAN DATE OF SUMMARY FILE WANTED"

The utility program is asking for the julian day (001-366) of the LMSUM daily file to be read in.

(3) "TYPE IN YEAR (82, 83, 84)"

The utility program is asking for the year stamp of the LMSUM daily file. For example, if the year wanted is 1982, type "82".

(4) "TYPE IN CORRESPONDING NUMBER OF OPTION WANTED
1. INPUT FILE OF SMCTS TO BE USED
2. ALL SMCTS FROM FILE TO BE USED
3. TYPE IN SMCT(S) TO BE USED"

The utility program requires the SMCT numbers to be used. If the SMCT numbers are in a file, type "1". If all SMCT numbers are to be used, type "2". If the SMCT numbers are to be typed in, type "3".

(5) "TYPE IN NAME OF INPUT FILE OF SMCTS"

This question is only asked if question (4) is answered "1". The utility program is asking for the name of the file which contains the SMCT numbers to be used.

(6) "TYPE IN SMCTS, ONE PER LINE
TYPE IN ALL NINES TO END"

This question is only asked if question (4) is answered "3". The utility program is asking for the SMCT numbers to be used. Type in first SMCT number and press RETURN. Continue until all SMCT numbers have been entered. Then type "9, 9, 9, 9" and press RETURN. The SMCT numbers do not have to be entered in ascending order.

UTL050

Description

UTL050 requires from the user the name of the 2 EXT-SPSS files to be read in and the name of the EXT-SPSS file to be created. The program will read in both files, one SMCT number at a time. If the SMCT numbers match, the data is merged and the result is sent to the new file. If the SMCT numbers do not match, the data of the smaller SMCT number is sent to the new file. Processing continues until all SMCT numbers of both input files have been completed. The EXT-SPSS file created will contain the number of columns of data of the first input file plus the second input file, including their time or day stamps.

Questions Asked

(1) "TYPE IN NAME OF EXT-SPSS INPUT FILE #1"

The utility program is asking for the name of the first EXT-SPSS file to be read in.

(2) "TYPE IN NAME OF EXT-SPSS INPUT FILE #2"

The utility program is asking for the name of the second EXT-SPSS file to be read in.

(3) "TYPE IN NAME OF EXT-SPSS OUTPUT FILE"

The utility program is asking for the name of the EXT-SPSS file to be created.

(4) "HOW MANY RECORDS PER CASE (INCLUDING HEADER)"

The utility program is asking for the number of rows of data plus a header record that is found for each SMCT number in both EXT-SPSS files to be read in.

(5) "HOW MANY COLUMNS IN INPUT FILE #1"

The utility program is asking for the number of columns of data that is found in the first EXT-SPSS file which is to be read in. This includes the column of time or day stamps.

(6) "HOW MANY COLUMNS IN INPUT FILE #2"

The utility program is asking for the number of columns of data that is found in the second EXT-SPSS file which is to be read in. This includes the column of time or day stamps.

UTL051

Description

UTL051 requires from the user the name of the EXT-SPSS file to be read in and the name of the EXT-SPSS file to be created. The program will first read in the entire EXT-SPSS file. The customer data base file is read to get the CID numbers for the SMCT numbers found in the EXT-SPSS file. If two SMCT numbers have the same CID number, their data is merged and sent to the new EXT-SPSS file. If a CID number has only one SMCT number, its data is sent unchanged to the new EXT-SPSS file. This new file will contain two times the number of columns of data of the input file, including its time or day stamps. The new EXT-SPSS file will contain CID numbers in the header records instead of SMCT numbers.

Questions Asked

(1) "TYPE IN INPUT FILE NAME"

The utility program is asking for the name of the EXT-SPSS file to be read in.

(2) "TYPE IN OUTPUT FILE NAME"

The utility program is asking for the name of the EXT-SPSS file to be created.

(3) "TYPE IN # OF COLUMNS IN INPUT FILE"

The utility program is asking for the number of columns of data that is found in the EXT-SPSS file which is to be read in. The includes the column of time or day stamps.

(4) "TYPE IN # OF ROWS PER CASE (INCLUDING HEADER)"

The utility program is asking for the number of rows of data plus a header record that is found for each SMCT number in the EXT-SPSS file to be read in.

UTL052

Description

UTL052 requires from the user the name of the 2 LMDATA files, the name of the file which contains the SMCT numbers to be used, and the starting time and stopping time of the period in which to sum the data. The program assumes the starting time relates to the first LMDATA file, and the stopping time relates to the second LMDATA file. The program will attempt to sum only load types 32 and 31, and send the results to the line printer.

Questions Asked

(1) "TYPE IN NAME OF LMDATA FILE #1"

The utility program is asking for the name of the first LMDATA file to be read in.

(2) "TYPE IN NAME OF LMDATA FILE #2"

The utility program is asking for the name of the second LMDATA file to be read in.

(3) "TYPE IN NAME OF SMCT FILE"

The utility program is asking for the name of the file which contains the SMCT numbers to be used.

(4) "STARTING TIME HH, MM, SS (ASSUMING IN FIRST DAY)"

The utility program is asking for the starting time of the period in which to sum the data. The format required is hours, comma, minutes, comma, seconds.

(5) "STOPPING TIME HH, MM, SS (ASSUMING IN SECOND DAY)"

The utility program is asking for the stopping time of the period in which to sum the data. The format required is hours, comma, minutes, comma, seconds.

UTL053

This utility program is no longer available to the user, therefore it has been termed obsolete.

UTL054

Description

UTL054 requires from the user the name of the LMDATA file, the name of the file which contains the SMCT numbers to be used, the name of the new LPT type file to be created, and the load type to be summed or find maximum value of. The program will then calculate the sum or maximum value for the one load type of each SMCT number supplied. The program also requires to create the distribution curve, a maximum and minimum value of the distribution and the number of groups wanted for the curve. For example, suppose the maximum value was 100 and the minimum value was 0, and the number of groups was 10. Then all data values that are greater than or equal to 0 and less than 10 will be placed in group number 1. Once the distribution curve is calculated it will be sent to a new LPT type file.

Questions Asked

(1) "TYPE IN NAME OF LMDATA FILE"

The utility program is asking for the name of the LMDATA file to be read in.

(2) "TYPE IN NAME OF SMCT FILE"

The utility program is asking for the name of the file which contains the SMCT numbers to be used.

(3) "TYPE IN NAME OF OUTPUT FILE"

The utility program is asking for the name of the LPT type file to be created.

(4) "EXTRACTION CLASS (0, 1 OR 2)"

The utility program is asking for the extraction class to be used when extracting from the LMDATA file.

(5) "LOAD TYPE (XX)"

The utility program is asking for the load type to be summed or found maximum values of.

(6) "MAXIMUM FOR LOAD TYPE"

The utility program is asking for the maximum value to be used when calculating the distribution curve.

(7) "MINIMUM FOR LOAD TYPE"

The utility program is asking for the minimum value to be used when calculating the distribution curve.

(8) "NUMBER OF GROUPS (1 to 100)"

The utility program is asking for the number of groups to be created in the distribution curve.

(9) "PROCESS FOR MAXIMUM VALUES OR SUM OF VALUES (M/S)"

The utility program is asking whether the user wants the values to be summed or to find the maximum value. If summing is wanted, type "S". If maximum value is wanted, type "M".

(10) "DIVIDE METER SUMS BY 6? (Y/N)"

This question is only asked if question (9) is answered "S". The utility program is asking, if the load type wanted is an accumulator, should the sums be divided by 6. If answer is yes, type "Y". If answer is no, type "N".

UTL055

Description

UTL055 requires from the user the name of the file to be read in and the name of the type file to be created. The program will ask the user a series of questions, in which the answers will describe the format of the input file. Once all the questions are answered, the program reads in the file, reformats it, and then creates the LPT type file.

Questions Asked

(1) "TYPE IN NAME OF INPUT FILE"

The utility program is asking for the name of the file to be read in.

(2) "TYPE IN NAME OF OUTPUT FILE"

The utility program is asking for the name of the LPT type file to be created.

(3) "NUMBER OF VARIABLES TO BE EXTRACTED"

The utility program is asking for the number of columns of data which are to be extracted from the input file, and placed in the LPT type file.

(4) "IS ONE OF THE VARIABLES THE TIME STAMP WANTED (Y/N)"

The utility program is asking if one of the columns of data to be extracted from the input file is the time or day stamps the user wants placed in the LPT type file. If yes, type "Y". If no, type "N".

(5) "STARTING LINE NUMBER FOR DATA"

The utility program is asking which record or line number in input file is the starting point of the data to be extracted.

(6) "NUMBER OF LINES OF DATA"

The utility program is asking how many records or lines of data are to be extracted from the input file.

(7) "STARTING COLUMN FOR VAR #n"

The utility program is asking for the starting column number in the input file of the nth column of data to be placed in the new LPT type file.

(8) "LENGTH OF VAR #n"

The utility program is asking for the length in the input file of the nth column of data to be placed in the new LPT type file.

(9) "NUMBER OF DECIMAL PLACED FOR VAR #n"

The utility program is asking for the number of decimal places in the input file of the nth column of data to be placed in the new LPT type file.

(10) "WHICH VARIABLE IS THE TIME STAMP"

This question is only asked if question (4) is answered "Y". The utility program is asking for the column number of the column of data to be used as time or day stamps in the new LPT type file.

(11) "STARTING TIME"

This question is only asked if question (4) is answered "N". The utility program is asking for the starting time or day stamp to be used in the new LPT type file.

(12) "TIME INCREMENT"

This question is only asked if question (4) is answered "N". The utility program is asking for the increment to be used when calculating the time or day stamps for the new LPT type file.

UTL056

Description

UTL056 requires from the user the name of the LPT type file to be created. The program then asks a series of questions in which the answers create the LPT type file. The program asks for the number of columns to be placed in the LPT type file. The program assumes that column number one is the time or day stamps.

Questions Asked

(1) "TYPE IN NAME OF LPT FILE"

The utility program is asking for the name of the LPT type file to be created.

(2) "TYPE IN NUMBER OF COLUMNS...2, 3, 4, OR 5"

The utility program is asking for the number of columns of data to be placed in the LPT type file. Remember, column one is the time or day stamps.

(3) "TYPE IN NUMBER OF ROWS"

The utility program is asking for the number of rows or records of data that are to be placed in the LPT type file. This does not include the header record.

(4) "ROWS #n"

The utility program is asking for the nth row of data to be placed in the LPT type file. The numbers entered should be separated by a blank space or comma.

(5) "CREATE ANOTHER LPT FILE (Y/N)"

The utility program is asking if the user wants to create another LPT type file using different data. If yes, type "Y". If no, type "N".

UTL057

Description

ULT057 requires from the user the name of the EXT-SPSS file to be read in, the name of the LPT type file to be created if the user requests one, and the load type to be averaged across the time slots. If the user requests an EXT-SPSS file to be created containing all the data for the SMCT numbers which have the minimum sum given for the load type in question, then the program also requires the name of this file. The program will read in the data for one SMCT number at a time. If the data for the load type given has the minimum sum given, then the data is sent to the new EXT-SPSS file and included in the averaging for the new LPT type file. Once all the data from the EXT-SPSS input file has been read, the new LPT type file is written.

Questions Asked

(1) "TYPE IN NAME OF EXT-SPSS FILE"

The utility program is asking for the name of the EXT-SPSS file to be read in.

(2) "WOULD YOU LIKE A CORRECT EXT-SPSS FILE (Y/N)"

The utility program is asking if the user would like a new EXT-SPSS file created, containing the data of the SMCT numbers which have the given minimum sum for the given load type. If yes, type "Y". If no, type "N".

(3) "TYPE IN NAME OR CORRECTED EXT-SPSS FILE"

This question is only asked if question (2) is answered "Y". The utility program is asking for the name of the EXT-SPSS file to be created.

(4) "TYPE IN LOAD TYPE TO BE AVERAGED"

The utility program is asking for the load type that is to be averaged across the time slots.

(5) "ENTER NUMBER OF COLUMNS INCLUDING TIME STAMP"

The utility program is asking how many columns of data are found in the input EXT-SPSS file including the column of day or time stamps.

(6) "IS COLUMN #1 A TIME STAMP (Y/N)"

The utility program is asking if column one of the input EXT-SPSS file is a column of day or time stamps. If yes, type "Y". If no, type "N".

(7) "TYPE IN NUMBER OF ROWS PER CASE (INCLUDING HEADER)"

The utility program is asking for the number of rows or records, including header, that are found for each SMCT number in the input EXT-SPSS file.

(8) "TYPE IN LOWEST ACCEPTABLE SUM"

The utility program is asking for the minimum sum required, for the load type in question, in order to include the data in the new EXT-SPSS file or in the averaging for the new LPT type file.

(9) "CREATE LPT FILE FROM AVERAGED DATA (Y/N)"

The utility program is asking if the user wants an LPT type file created from the averaged data. If yes, type "Y". If no, type "N".

(10) "TYPE IN NAME OF LPT FILE"

This question is only asked if question (9) is answered "Y". The utility program is asking for the name of the LPT type file to be created.

(11) "TYPE IN STARTING TIME STAMP FOR LPT FILE"

This question is only asked if question (9) is answered "Y". The utility program is asking for the starting time or day stamp to be used in the new LPT type file. The answer should be in hours or days.

(12) "TYPE IN INCREMENT FOR TIME STAMPS"

This question is only asked if question (9) is answered "Y". The utility program is asking for the increment of the time or day stamps to be used in the new LPT type file. The answer should be in hours or days.

UTL058

This utility program is no longer available to the user, therefore, it has been termed obsolete.

UTL059

Description

UTL059 gives the user the options of listing, deleting, or modifying parts of the file on disk DRO:, in account [3,2], and named LDTYP,TAB. This file is known as the validation file. If listing is chosen, selected parts or all of the file will be sent to the terminal screen or line printer. If deleting is chosen, all information for the load types supplied by the user will be deleted from the file. If modifying is chosen all information for the load types supplied by the user can be modified in the file.

Questions Asked

(1) "ENTER OPTION LI, DE, UP OR EX"

The utility program is asking the user which option is desired. If a listing of part or all of the LDTYP.TAB file is wanted, type "LI". If deletion of one or more load types is wanted, type "DE". If updating of the file is wanted, type "UP". If exiting from the program is wanted, type "EX".

(2) "ENTER LOAD NO TO BE REPLACED (0 to EXIT)"

This question is only asked if question (1) is answered "UP". The utility program is asking for the next load type to be updated. Type "0" if no more load types to be updated.

(3) "ENTER NEW VALUES? (Y/N)"

This question is only asked if question (1) is answered "UP". The utility program is asking if the user wishes to change the values stored in LDTYP.TAB for the load type in question. If yes, type "Y". If no, type "N".

(4) "ENTER MONITOR TYPE (DD)"

This question is only asked if question (3) is answered "Y". The utility program is asking for the new monitor type for the load type in question.

(5) "WATER HEATING SYSTEM (Y/N)"

This question is only asked if question (3) is answered "Y". The utility program is asking whether the load type in question is monitoring a water heating system. If yes, type "Y". If no, type "N".

(6) "ENTER UNIT OF MEASURE"

This question is only asked if question (3) is answered "Y". The utility program is asking for the unit of measure used for the load type in question.

(7) "ENTER LOW, "ON", HIGH VALUES

This question is only asked if question (3) is answered "Y". The utility program is asking for the new low, "ON", and high values to be used for the load type in question.

(8) "ENTER OUTPUT TO TI OR LP"

This question is only asked if question (1) is answered "LI". The utility program is asking whether the user wants the listing to be sent to the terminal screen or the line printer. If terminal screen, type "TI". If line printer, type "LP".

(9) "1. METERS 2. RELAYS
3. STATUS 4. ANALOG
5. HEATING SYSTEM 6. LOADS
7. RETURN ENTER (1-7)"

This question is only asked if question (1) is answered "LI". The utility program is asking which part of the LDTYP.TAB file does the user wish to see. To get the same type of information on all load types, type "1", or "2", or "3", or "4", or "5". To get all information on a range of load types, type "6". When completed, type "7".

(10) "ENTER LOAD START #, END #"

This question is only asked if question (9) is answered "6". The utility program is asking for the range of load types to be printed. Type in two numbers separated by a comma. The first number must be the lower limit. The second number must be the upper limit.

(11) "ENTER LOAD NO. TO BE DELETED (0 TO EXIT)"

This question is only asked if question (1) is answered "DE". The utility program is asking for the next load type to be deleted from the LDTYPE.TAB file. If no more to delete, type "0".

(12) "DELETE PENDING -- ENTER Y TO CONFIRM, N TO CANCEL"

This question is only asked if question (1) is answered "DE". The utility program is checking to make sure the user really wants to delete the load in question. If yes, type "Y". If no, type "N".

UTL060

Description

UTL060 requires from the user the name of the LPT type file to be read in and the column number which is to be plotted. The program also requires a main title and a subtitle along with the X-axis, and Y-axis annotations. The program will default the limits for the X-axis and Y-axis, to their minimum and maximum values found in the LPT type file. If these defaults are not wanted, the user may change the limits. Once all the questions are answered, the plot is created and sent to the line printer.

Questions Asked

(1) "ENTER NAME OF LPT FILE"

The utility program is asking for the name of the LPT type file to be read in.

(2) "ENTER COL# TO BE Y-AXIS (1, 2, 3 or 4)"

The utility program is asking for the column number to be plotted from the LPT type file. The time or day stamp column is not considered column one because it is always used as the X-axis for the plot.

(3) "ENTER TITLE (MAX 30 CHARS)"

The utility program is asking for the main title to be used when the plot is sent to the line printer.

(4) "ENTER SUBTITLE (MAX 30 CHARS)"

The utility program is asking for the subtitle to be used when the plot is sent to the line printer.

(5) "ENTER UNITS FOR X-AXIS (MAX. 10 CHARS)"

The utility program is asking for the X-axis annotation to be used when the plot is sent to the line printer.

(6) "ENTER UNITS FOR Y-AXIS (MAX 10 CHARS)"

The utility program is asking for the Y-axis annotation to be used when the plot is sent to the line printer.

(7) "MIN Y = n MAX Y = m MODIFY? (Y/N)"

The utility program is asking if the user would like to change the limits of the Y-axis that have been calculated. If yes type "Y". If no, type "N".

(8) "ENTER <LOWER, UPPER> BOUNDARIES"

This question is only asked if question (7) is answered "Y". The utility program is asking for the new limits to be used for the Y-axis. Type in two numbers separated by a comma.

UTL061

Description

UTL061 requires from the user the name of all the LPT type files to be read in and the name of the LPT type file to be created. If all of the input files have been concatenated together to create one input file, then just enter the name of the file once. The program will for each load type average the data across the time slots. The program assumes each LPT type input file has the same load types. The results are sent to the new LPT type file.

Questions Asked

(1) "IS INPUT FILE ALREADY MERGED (Y/N)"

The utility program is asking if the input LPT type file is the result of concatenating many LPT type files together. If yes, type "Y". If no type "N".

(2) "HOW MANY TIME SLOTS PER CASE"

The utility program is asking how many time slots or records are found for each case not including header record in the input LPT type file. If the input file is not the result of concatenating many LPT type files together, then the number of cases is 1.

(3) "ENTER AN INPUT FILE NAME ("NO" TO FINISH)"

The utility program is asking for the name of the next LPT type file to be read in. When all LPT type files have been read in, type "NO". If question (1) was answered "Y", this question will only be asked once.

(4) "ENTER OUTPUT FILE NAME"

The utility program is asking for the name of the LPT type file to be created.

UTL062

Description

UTL062 requires the name of the LPT type file or EXT-SPSS file to be read in. The output file will have the same format and name as the input file. The program allows one column of data to be deleted and/or one column of data to be added. Also, the time or day stamps can be changed if they are present.

Questions Asked

(1) "ENTER NAME OF INPUT FILE"

The utility program is asking for the name of the LPT type or EXT-SPSS file to be read in.

(2) "INPUT FILE TYPE? (SPSS OR LPT) <S/L>"

The utility program is asking if the input file is an LPT type or EXT-SPSS file. If LPT type file, type "L". If EXT-SPSS file, type "S".

(3) "HOW MANY ROWS PER CASE (EXCLUDING HEADER)"

The utility program is asking for the number of rows or records for each case, not including the header record, that are found in the input file. If this file is an LPT type file, the number of cases is 1.

(4) "IS COLUMN 1 A TIME/DAY STAMP (Y/N)"

The utility program is asking if column 1 is time or day stamps. If yes, type "Y". If no, type "N". If the input file is an LPT type file, then the answer should always be yes.

(5) "RESEQUENCE COLUMN 1 (X-AXIS) <Y/N>"

The utility program wants to know if the user would like column 1 changed to new values.

(6) "ENTER FIRST VALUE AND INCREMENT"

This question is only asked if question (5) is answered "Y". The utility program is asking for the first new value for column 1 and the increment to be used to create the rest of the new values.

(7) "HOW MANY COLUMNS IN THIS FILE"

This question is only asked if question (2) is answered "S". The utility program is asking how many columns of data are found in the EXT-SPSS input file.

(8) "IS A DATA COLUMN TO BE ADDED (Y/N)"

The utility program is asking whether the user wants to add a column of data. If yes, type "Y". If no, type "N".

(9) "ENTER DATA TYPE TO BE ADDED"

This question is only asked is question (8) is answered "Y". The utility program is asking for the load type of the column of data to be added.

(10) "IS A DATA COLUMN TO BE DELETED (Y/N)"

The utility program is asking whether the user wants to delete a column of data. If yes, type "Y". If no, type "N".

(11) "ENTER DATA TYPE TO BE DELETED"

This question is only asked if question (10) is answered "Y". The utility program is asking for the load type of the column of data to be deleted.

UTL063

Description

UTL063 requires the name of the LPT type on EXT-SPSS file to be read in and the name of the LPT type or EXT-SPSS file to be created. This program can be used to change the format of the input file, if desired. However, the program will allow one or more of nine other modifications. These include adding, subtracting, multiplying, or dividing a column of data by a constant, converting a column of data to percentage of highest value in the column, interpolating for missing data, calculating natural logarithms, and calculating square roots.

Questions Asked

(1) "ENTER NAME OF INPUT FILE"

The utility program is asking for the name of the LPT type or EXT-SPSS input file.

(2) "WHAT TYPE IS THIS FILE (SPSS or LPT) <S/L>"

The utility program is asking whether the input file is an LPT type or EXT-SPSS file. If LPT type file, type "L". If EXT-SPSS file, type "S".

(3) "HOW MANY LOAD TYPES IN THIS FILE"

This question is only asked if question (2) is answered "S". The utility program is asking how many load types are found in the EXT-SPSS input file.

(4) "ENTER NAME OF OUTPUT FILE"

The utility program is asking for the name of the LPT type or EXT-SPSS output file.

(5) "WHAT TYPE IS THIS FILE (SPSS OR LPT) <S/L>"

The utility program is asking whether the output file is an LPT type of EXT-SPSS file. If LPT type file, type "L". If EXT-SPSS file, type "S".

(6) "SELECT FUNCTION YOU WISH TO PERFORM

A - ADD A CONSTANT
B - SUBTRACT A CONSTANT
C - MULTIPLY BY A CONSTANT
D - DIVIDE BY A CONSTANT

E - CONVERT TO PERCENTAGE OF HIGHEST INPUT VALUE
I - INTERPOLATE FOR MISSING DATA
L - CALCULATE NATURAL LOG OF DATA
R - CALCULATE SQUARE ROOT OF DATA
S - SQUARE THE DATA
X - COMPLETE AND EXIST OF DATA

The utility program is asking for the next option that the user would like performed. If no more option are desired, type "X".

(7) "WHICH DATA TYPE?"

The utility program is asking for the load type of the data in which the option just chosen will be performed on.

(8) "ENTER RANGE OF MISSING VALUES (HIGH, LOW)"

This question is only asked if question (6) is answered "I". The utility program is asking for the range of values that are to be considered missing, therefore, need interpolating.

(9) "ENTER CONSTANT"

This question is only asked if question (6) is answered "A", "B", "C", or "D". The utility program is asking for the constant to be added, deleted, multiplied by, or divided by.

UTL064

Description

UTL064 requires from the user the name of the EXT-SPSS file to be read in, the load type to be checked, and the maximum and minimum values to be used for each load type when checking. All values that fall outside the ranges given by the maximum and minimum values, are changed to a value of -100. The output file will be exactly the same as the input file except for the values that have been changed and will have the same name as the input file.

Questions Asked

(1) "TYPE IN NAME OF EXT-SPSS FILE"

The utility program is asking for the name of the EXT-SPSS file to be read in.

(2) "TYPE IN LOAD TYPE (0=EXIT)"

The utility program is asking for the next load type to be checked. If all load types to be checked have been entered, type "0".

(3) "TYPE IN MAXIMUM AND MINIMUM"

The utility program is asking for the maximum and minimum values to be used for the load types just entered.

(4) "TYPE IN NUMBER OF COLUMNS"

The utility program is asking how many columns of data are found in the EXT-SPSS input file. This includes Column 1.

(5) "IS COLUMN #1 A TIME STAMP (Y/N)"

The utility program is asking if Column 1 of the input file is time or day stamps. If yes, type "Y". If no, type "N".

(6) "TYPE IN # OF ROWS (INCLUDING HEADER)"

The utility program is asking how many rows or records including header are found for each SMCT number in the EXT-SPSS input file.

UTL065

Description

UTL065 requires from the user the name of the EXT-SPSS file to be read in, the name of the EXT-SPSS file to be created from the extraction, the name of the file of SMCT numbers to be used for extracting, and the name of the left over EXT-SPSS file if the file is desired. The program reads the input file, one block of data at a time. Each block contains all the data for one SMCT number. If the SMCT number is found in the list of SMCT numbers supplied, then the block of data is sent to the new EXT-SPSS file. If the SMCT number is not found in the list, then the block of data is sent to the leftover EXT-SPSS file, if the user has requested one.

Questions Asked

(1) "TYPE IN NAME OF EXT-SPSS INPUT FILE"

The utility program is asking for the name of the EXT-SPSS file to be read in.

(2) "TYPE IN NAME OF EXT-SPSS OUTPUT FILE"

The utility program is asking for the name of the EXT-SPSS file to be created.

(3) "TYPE IN # OF COLUMNS"

The utility program is asking for the number of columns of data in the input file. This includes column 1.

(4) "TYPE IN # OF ROWS (INCLUDING HEADER)"

The utility program is asking for the number of rows or records of data including header that are found for each SMCT number in the EXT-SPSS input file.

(5) "IS COLUMN #1 A TIME STAMP (Y/N)"

The utility program is asking if Column 1 in the input file is time or day stamps. If yes, type "Y". If no, type "N".

(6) "TYPE IN NAME OF SMCT FILE"

The utility program is asking for the name of the file which contains the SMCT numbers to be used for extracting the data.

(7) "CREATE A LEFTOVER'S FILE?"

The utility program is asking if the user wants an EXT-SPSS file to be created which will contain all the data which was not extracted from the input file. If yes, type "Y". If no type "N".

(8) "TYPE IN NAME OF LEFTOVER FILE"

This question is only asked if question (7) is answered "Y". The utility program is asking for the name of the EXT-SPSS file which will contain all the data not extracted from the input file.

ULT066

Description

ULT066 requires from the user the name of the EXT-SPSS file to be read in, the name of the LPT type file to be created, the load type to be average, and the level of confidence to use. The program will read in the EXT-SPSS file and average the data across the time slots for the given load type. The program will then read in the EXT-SPSS file again and create the upper and lower confidence limits for each time slot. The output LPT type file created, will contain three columns of data. The first column will contain the lower limits, the second column will contain the average values, and the third column will contain the upper limits.

Questions Asked

(1) "TYPE IN NAME OF EXT-SPSS INPUT FILE"

The utility program is asking for the name of the EXT-SPSS file to be read in.

(2) "TYPE IN NAME OF LPT OUTPUT FILE"

The utility program is asking for the name of the LPT type file to be created.

(3) "TYPE IN # OF COLUMNS"

The utility program is asking for the number of columns of data that are found in the input file. This includes Column 1.

(4) "TYPE IN # OF ROWS (INCLUDING HEADER)"

The utility program is asking for the number of rows or records of data including header that is found for each SMCT number in the input data.

(5) "IS COLUMN #1 A TIME STAMP (Y/N)"

The utility program is asking if Column 1 of the input file is time or day stamps. If yes, type "Y". If no type "N".

(6) "TYPE IN LOAD TYPE"

The utility program is asking for the load type to be averaged together and found confidence intervals.

(7) "TYPE IN CONFIDENCE INTERVALS (90, 95, or 99)"

The utility program is asking for the level of confidence that the user wants used. The choices are 90, 95 or 99%.

(8) "TYPE IN STARTING TIME (IN HOURS)"

The utility program is asking for the starting time, in hours or days, to be used when creating time or day stamps for the output file.

(9) "TYPE IN TIME INCREMENT (0.1666666 - 10 MIN)"

The utility program is asking for the increment, in hours or days, to be used when creating time or day stamps for the output file.

ULT067

Description

ULT067 requires from the users the julian day and year stamp of the weather data that is desired. The utility assumes that the corresponding SCAMET file is found on disk DR1:, in account [100,10]. If the user requests, the utility will create a report, which includes temperature, wind speed, and wind direction statistics, and sends it to the line printer and/or a new LPT type file which will be found on disk DR0:, in account [100,10] and named ASCAMET.ddd, where "ddd" is the julian day.

Questions Asked

(1) "TYPE IN JULIAN DAY"

The utility program requires the three digit julian number (001-366).

(2) "TYPE IN YEAR (XX)"

The utility program requires the two digit year stamp. For example, if year wanted is 1982, then type "82".

(3) "DO YOU WANT A REPORT PRINTED (Y/N)"

The utility program is asking whether the use wants the report sent to the line printer. If yes, type "Y". If no, type "N".

(4) "DO YOU WANT A PLOTTING FILE PRINTED (Y/N)"

The utility program is asking whether the user wants the report to be sent to a new LPT type file. If yes, type "Y". If no, type "N".

UTL068

Description

ULT068 requires from the user the name of the LPT type or EXT-SPSS file to be read in, the name of the LPT type file to be created, the load type to be averaged, and the level of confidence to use. The program assumes if the input file is an LPT type file, that it contains more than one LPT type file concatenated together. The program reads in the input file and averages the data across the time slots for the given load type. The program then reads in the input file again and creates the upper and lower confidence limits for each time slot. The output file created, will contain three columns of data. The first column will contain the lower limits, the second column will contain the average values, and the third column will contain the upper limits.

Questions Asked

(1) "TYPE IN NAME OF (SPSS-LPT) INPUT FILE"

The utility program is asking for the name of the EXT-SPSS or LPT type file to be read in.

(2) "IS INPUT FILE SPSS OR LPT FORMAT (S/L)"

The utility program is asking whether the input file is an EXT-SPSS file or an LPT type file. If EXT-SPSS file, type "S". If LPT type file, type "L".

(3) "TYPE IN NAME OF LPT OUTPUT FILE".

The utility program is asking for the name of the LPT type file to be created.

(4) "TYPE IN # OF COLUMNS"

The utility program is asking for the number of columns of data that is found in the input file. This includes Column 1.

(5) "TYPE IN # OF ROWS (INCLUDING HEADER)"

The utility program is asking for the number of rows or records of data including header that is found for each SMCT number in the input data.

(6) "IS COLUMN #1 A TIME STAMP (Y/N)"

The utility program is asking if Column 1 of the input file is time or day stamps. If yes, type "Y". If no, type "N".

(7) "TYPE IN LOAD TYPE"

The utility program is asking for the load type to be averaged together and found confidence intervals.

(8) "TYPE IN CONFIDENCE INTERVAL (90, 95 or 99)"

The utility program is asking for the level of confidence that the user wants used. The choices are 90, 95 or 99%.

(9) "TYPE IN STARTING TIME (IN HOURS)"

The utility program is asking for the starting time, in hours or days, to be used when creating time or day stamps for the output file.

(10) "TYPE IN TIME INCREMENTS (0.1666666 = 10 min)"

The utility program is asking for the increment in hours or days, to be used when creating time or day stamps for the output file.

UTL069

Description

UTL069 requires from the user the name of the LPT type file to be read in, the load type to be summed, and the starting and stopping time for the interval to be summed. The program reads in the LPT type file and searches for a column of data with the load type given. When it finds one, it sums the column during the time interval given, and divides the sum by a factor of 6. The result is sent to the terminal screen.

Questions Asked

(1) "TYPE IN FILE NAME"

The utility program is asking for the name of the LPT type file to be read in.

(2) "TYPE IN START TIME (HHMMSS)"

The utility program is asking for the starting time for the interval to be summed. It assumes the format of "HHMMSS".

(3) "TYPE IN STOP TIME (HHMMSS)"

The utility program is asking for the stopping time for the interval to be summed. It assumed the format of "HHMMSS".

(4) "TYPE IN LOAD TYPE"

The utility program is asking for the load type to be summed.

UTL070

Description

UTL070 requires from the user the name of the OSHMET file to be read in, the name of the LPT type file to be created, and the range of days to be extracted from the OSHMET file. The program will read the OSHMET file and extracts the average daily temperatures and wind speeds. It will then calculate the degree days for each day in the range. The output file will contain three columns of data. The first column will be the average daily temperature, the second column will be the average daily wind speed, and the third column will be the degree days.

Questions Asked

(1) "TYPE IN STARTING DAY"

The utility program is asking for the starting julian day (001-366) to be extracted from the OSHMET file.

(2) "TYPE IN STOPPING DAY"

The utility program is asking for the stopping julian day (001-366) to be extracted from the OSHMET file.

(3) "TYPE IN WEATHER DATA FILE NAME"

The utility program is asking for the name of the OSHMET file to be read in.

(4) "TYPE IN OUTPUT FILE NAME"

The utility program is asking for the name of the LPT type file to be created.

UTL071

Description

UTL071 requires from the user the name of the EXT-SPSS file to be read in, the name of the new file to be created, and the starting and stopping time of the interval to be summed or averaged. The program will read in the EXT-SPSS file, one SMCT number at a time. It then sums or averages every column of data, including column one, during given time interval, and sends the results and the SMCT number to the output file. If column one is not time or day stamps, the program creates temporary time stamps with 10 min intervals. Therefore, the first row of data will be given a time stamp of 10 min, the second row of data will be given a time stamp of 20 min, etc.

Questions Asked

(1) "TYPE IN NAME OF EXT-SPSS INPUT FILE"

The utility program is asking for the name of the EXT-SPSS file to be read in.

(2) "TYPE IN NAME OF OUTPUT FILE"

The utility program is asking for the name of the output file to be created.

(3) "TYPE IN # OF COLUMNS"

The utility program is asking for the number of columns of data that is found in the input file. This includes Column 1.

(4) "TYPE IN # OF ROWS (INCLUDING HEADER)"

The utility program is asking for the number of rows or records of data including header that is found for each SMCT number in the input data.

(5) "IS COLUMN #1 A TIME STAMP (Y/N)"

The utility program is asking if column 1 of the input file is time or day stamps. If yes, type "Y". If no, type "N".

(6) "COLUMNS SUMMED OR AVERAGED (S/A)"

The utility program is asking if the columns of data are to be summed or averaged. If summed, type "S". If averaged, type "A".

(7) "STARTING TIME (HH,MM)"

The utility program is asking for the starting time of the interval to be summed or averaged. The format needed is hours, comma, minutes.

(8) "STOPPING TIME (HH,MM)"

The utility program is asking for the stopping time of the interval to be summed or averaged. The format needed is hours, comma, minutes.

UTL072

Description

UTL072 requires from the user the name of the EXT-MON file to be read in and the name of the EXT-SPSS file to be created. The program simply reads in the EXT-MON file, one SMCT number at a time, reformats it, and then writes it out to the new EXT-SPSS file with all the data unchanged. The program does not check to make sure that all SMCT numbers have the same number of columns of data. This is important, because most utility programs that read in EXT-SPSS files, assume all SMCT numbers have the same number of columns of data.

Questions Asked

(1) "TYPE IN EXT-LPT SUMMARY FILE"

The utility program is asking for the name of the EXT-MON file to be read in.

(2) "TYPE IN SPSS FILE (OUTPUT FILE)"

The utility program is asking for the name of the EXT-SPSS file to be created.

UTL073

Description

UTL073 requires the name of the LPT type or EXT-SPSS file to be read in and the name of the LPT type or EXT-SPSS file to be created. This program can be used to change the format of the input file, if desired. However, the program will allow one of eight other modifications. These include adding, subtracting, multiplying, or dividing a column of data by a constant or another column of data, converting a column of data to percentage of highest value in the column, calculating natural logarithms, calculating square roots, and calculating squares of data.

Questions Asked

(1) "ENTER NAME OF INPUT FILE"

The utility program is asking for the name of the LPT type of EXT-SPSS input file.

(2) "WHAT TYPE IS THIS FILE (SPSS OR LPT) <S/L>"

The utility program is asking whether the input file is an LPT type or EXT-SPSS file. If LPT type file, type "L". If EXT-SPSS file, type "S".

(3) "HOW MANY COLUMNS IN THIS FILE"

This question is only asked is question (2) is answered "S". The utility program is asking how many columns of data are found in the EXT-SPSS input file. A column of time or day stamps is considered a column of data.

(4) "ENTER NAME OF OUTPUT FILE <CR> FOR SAME AS INPUT"

The utility program is asking for the name of the LPT type or EXT-SPSS output file. If name is the same as input file, just press RETURN.

(5) "WHAT TYPE IS THIS FILE (SPSS OR LPT) <S/L>"

The utility program is asking whether the output file is an LPT type or EXT-SPSS file. If LPT type file, type "L". If EXT-SPSS file, type "S".

(6) "HOW MANY ROWS PER CASE INCLUDING HEADER"

The utility program is asking how many rows or records including header are found for each SMCT number (if EXT-SPSS input file) or case (if LPT t e input file).

(7) "SELECT FUNCTION YOU WISH TO PERFORM

A - ADD
B - SUBTRACT
C - MULTIPLY
D - DIVIDE
E - CONVERT TO PERCENTAGE OF THE RANGE OF INPUT VALUES
L - CALCULATE NATURAL LOG OF DATA
R - CALCULATE SQUARE ROOT OF DATA
S - SQUARE THE DATA
K - FILE CONVERSION ONLY"

The utility program is asking for the option that the user would like performed. Type "K" for file conversion only.

(8) "APPLY TRANSFORM TO WHICH COLUMN?"

The utility program is asking for the number of the column in which the user wants the function performed on.

(9) "SELECT - CONSTANT (C) OR DATA COLUMN (D)"

This question is only asked if question (7) is answered "A", "B", "C", OR "D". The utility program is asking whether the user wants a constant or another column of data to be used. If constant, type "C". If column of data, type "D".

(10) "ENTER CONSTANT"

This question is only asked if question (9) is answered "C". The utility program is asking for the constant to be added, subtracted, multiplied by, or divided by.

(11) "APPLY TRANSFORM TO WHICH COLUMN"

This question is only asked if question (9) is answered "D". The utility program is asking for the number of the column of data to be used for adding, subtracting, multiplying or dividing with.

UTL074

Description

UTL074 requires from the user the name of the file of SMCT numbers to be read in and the name of the file of CID numbers to be created. The program reads in the SMCT numbers one at a time. It then attempts to find the matching CID number in the customer data base. If it finds the CID number, it is written in the output file. If it does not find the CID number, it sends a message to the terminal screen.

Questions Asked

(1) "ENTER SMCT INPUT FILE NAME"

The utility program is asking for the name of the file of SMCT numbers to be read in.

(2) "ENTER OUTPUT FILE NAME"

The utility program is asking for the name of the file of CID numbers to be created.

UTL075

Description

UTL075 requires from the user the name of the one or two EXT-SPSS files to be read in, the name of the EXT-SPSS file to be created, and the load type to be placed in the output file. The program reads in the one or two input files. If either file contains SMCT numbers, the CID numbers are found in the customer data base. Next, all columns of data for each CID number are grouped together. Then for each CID number the columns of data, containing the load types supplied by the user, are sent to the new EXT-SPSS file. If there are no time or day stamps in either of the input files, then the program asks for the starting time or day stamp and the increment, to use in the output file.

Questions Asked

(1) "TYPE IN NAME OF INPUT FILE #n"

The utility program is asking for the name of the EXT-SPSS input file number one or two. If only one input file is wanted, then when the name of the second input file is asked for, just press RETURN.

(2) "TYPE IN # OF COLUMNS IN INPUT FILE #n

The utility program is asking for the number of columns found in the first or second input file. Column one is included.

(3) "TYPE IN # OF ROWS PER CASE (INCLUDING HEADER)"

The utility program is asking for the number of rows or records including header that are found for each SMCT number or CID number of the input file in question.

(4) "IS COLUMN #1 A TIME STAMP (Y/N)"

The utility program is asking if column one of the input file in question is day or time stamps. If yes, type "Y". If no, type "N".

(5) "DOES INPUT FILE #n HAVE SMCT'S OR CIDS (S/C)"

The utility program is asking if the input file in question has SMCT numbers or CID numbers. If SMCT number, type "S". If CID numbers, type "C".

(6) "TYPE IN OUTPUT FILE NAME"

The utility program is asking for the name of the EXT-SPSS file to be created.

(7) "TYPE IN STARTING TIME STAMP"

This question is only asked if neither of the input files have time or day stamps. The utility program is asking for the starting time or day stamp, in hours or days, to be used in the output file.

(8) "TIME INCREMENT (10 min = 0.1666667)"

This question is only asked if neither of the input files have time or day stamps. The utility program is asking for he increment, in hours or days, to be used in the output file.

(9) "LOAD TYPE WANTED IN OUTPUT FILE (0 = EXIT)"

The utility program is asking for the load types wanted in the EXT-SPSS file to be created. Type in first load type and press RETURN. Continue until all load types wanted have been entered. Then type "0" and press RETURN.

UTL076

Description

UTL076 requires from the user the name of the two LPT type or EXT-SPSS files to be read in, and the name of the LPT type or EXT-SPSS file to be created. The program will read in both files, one record at a time. If time or day stamps match, then data is merged and sent to output file. If time or day stamps don't match, then data with smaller time or day stamp is sent to output file, and another record is read. Once both files are processed, the output file is complete.

Questions Asked

(1) "TYPE IN NAME OF EXT-SPSS INPUT FILE #n"

The utility program is asking for the name of the LPT type or EXT-SPSS input file number one or two.

(2) "IS THIS AN SPSS OR LPT TYPE FILE <S/L>"

The utility program is asking if the file in question is an LPT type or EXT-SPSS file. If LPT type file, type "L". If EXT-SPSS file, type "S".

(3) "TYPE IN NAME OF EXT-SPSS OUTPUT FILE"

The utility program is asking for the name of the LPT type or EXT-SPSS output file.

(4) "HOW MANY COLUMNS IN INPUT FILE #n"

The utility program is asking for the number of columns of data that is found in the input file number one or two. This includes column one.

(5) "WHICH COLUMN IS THE INDEX"

The utility program is asking for the column number of the column of data, which is time or day stamps, in the input file in question.

UTL077

Description

UTL077 requires from the user the name of the EXT-SPSS file to be read in, the name of the LPT type file to be created if desired, the name of the EXT-SPSS file to be created if desired, and the load types to be checked and/or averaged. The program reads in the EXT-SPSS file one SMCT number or CID number at a time. The load types chosen by the user are summed and checked against their lowest acceptable sums. If an EXT-SPSS output file is desired, the columns of data which do not have their lowest acceptable sum are set to -100, and all columns of data are then sent to the output file. If an LPT type output file is desired, all columns of data which have load types wanted and have their lowest acceptable sums are averaged together, with previous data, by load type across the time slots. Once input file is totally processed, the LPT type file, if desired, is created.

Questions Asked

(1) "TYPE IN NAME OF EXT-SPSS FILE"

The utility program is asking for the name of the EXT-SPSS file to be read in.

(2) "DOES FILE HAVE SMCT'S OR CIDS (S/C)"

The utility program is asking if the input file has SMCT numbers or CID numbers in the header records. If SMCT numbers, type "S". If CID numbers, type "C".

(3) "WOULD YOU LIKE A CORRECTED EXT-SPSS FILE (Y/N)"

The utility program is asking if the user would like created, the EXT-SPSS output file containing all the data from the input file except columns of data which do not have their lowest acceptable sum. If yes, type "Y". If no, type "N".

(4) "TYPE IN NAME OF CORRECTED EXT-SPSS FILE"

This question is only asked if question (3) is answered "Y". The utility program is asking for the name of the EXT-SPSS output file to be created.

(5) "TYPE IN LOAD TYPE TO BE AVE'D (0 = EXT)"

The utility program is asking for the load types to be checked and/or averaged together. Type in first load type and press RETURN. Continue until all load types have been entered. Then type "0" and press RETURN.

(6) "ENTER NUMBER OF COLUMNS INCLUDING TIME STAMP"

The utility program is asking how many columns of data are found in the input file. Column one is included.

(7) "IS COLUMN ONE A TIME STAMP (Y/N)"

The utility program is asking if column one of the input file is time or day stamps. If yes, type "Y". If no, type "N".

(8) "TYPE IN NUMBER OF ROWS PER CASE (INCLUDING HEADER)"

The utility program is asking how many rows or records including header are found for each SMCT number or CID number in the input file.

(9) "TYPE IN LOWEST ACCEPTABLE SUM FOR LOAD = nn"

The utility program is asking for the lowest acceptable sum to be accepted when checking for load type nn.

(10) "CREATE LPT FILE FROM AVERAGED DATA (Y/N)"

The utility program is asking if the user would like an LPT type file created, containing the averaged data. If yes, type "Y". If no, type "N".

(11) "TYPE IN NAME OF LPT FILE"

This question is only asked if question (10) is answered "Y". The utility program is asking for the name of the LPT type file to be created.

(12) "TYPE IN STARTING TIME STAMP FOR LPT FILE"

This question is only asked if question (10) is answered "Y". The utility program is asking for the starting time or day stamp, in hours or days, to be used when creating time or day stamps for the LPT type file.

(13) "TYPE IN INCREMENT FOR TIME STAMPS"

This question is only asked if question (10) is answered "Y". The utility program is asking for the increment, in hours or days, to be used when creating time or day stamps for the LPT type file.

UTL078

The utility program is no longer available to the user, therefore, it has been termed obsolete.

UTL079

Description

UTL079 requires from the user the name of the LMERRS daily or monthly file to be read in. The program will read in the LMERRS file one record at a time. The program will keep track of SMCT numbers that have 144 errors in a day and the total occurrence for each. The program also sums for each error type and each time slot the occurrence in all SMCT numbers. These sums will include SMCT numbers that have 144 errors in a day, if desired. The output can be sent to the terminal screen, the line printer, or a new file which would be named UTL079.DAT. The output will contain each SMCT number which had 144 errors in a day and the number of occurrences of each, and/or, the sum of occurrence and/or percentage of occurrence of each error type and each time slot.

Questions Asked

(1) "EXCLUDE TOTALLY FAILED SMCTS? (Y/N)"

The utility program is asking if SMCT numbers which have 144 errors in one day should be included when computing the sum of occurrence or percentage of occurrence for each error type and each time slot. If yes, type "Y". If no, type "N".

(2) "LIST SMCTS WITH 144 ERRORS? (Y/N)"

The utility program is asking if SMCT numbers which have 144 errors in one day should be listed in the output along with the occurrence of each SMCT number. If yes, type "Y". If no, type "N".

(3) "DO YOU WANT ERROR TOTALS, PER CENTS OR BOTH (T/P/B)"

The utility program is asking if the user wants in the output, for each error type and each time slot, the total occurrence, the percentage occurrence, or both. If total, type "T". If percentage, type "P". If both, type "B".

(4) "WRITE TO PRINTER, TERMINAL OR FILE (P, T, F)"

The utility program is asking if the output should be sent to the line printer, the terminal screen, or a new file. If line printer, type "P". If terminal screen, type "T". If new file, type "F".

(5) "INPUT NAME OF LMERRS FILE"

The utility program is asking for the name of the LMERRS daily or monthly file to be read in.

UTL080

Description

UTL080 requires from the user the starting and stopping julian days of the LMDATA files to be read in and whether they are found on disk DB0: or DB1:, the accumulator load type to be used, the name of the file of SMCT numbers to be used, and the name of the EXT-SPSS file to be created. The program assumes the LMDATA files are stored in account [100,10], and have a year stamp of 84. The program reads in the LMDATA files, one SMCT number at a time. If the SMCT number is found in the file of SMCT numbers, then the maximum value, for the load type wanted, is found and placed in a table. This continues until all LMDATA files are processed. The program then creates an EXT-SPSS file which contains for each SMCT number all the maximum values found.

Questions Asked

(1) "DATA FILES ON DB0 OR DB1 (0 OR 1)"

The utility program is asking if the LMDATA files are stored on disk DB0: or DB1:. If DB0:, type "0". If DB1:, type "1".

(2) "TYPE IN STARTING JULIAN DAY"

The utility program is asking for the julian day (001-366) of the first LMDATA file to be read in.

(3) "TYPE IN STOPPING JULIAN DAY"

The utility program is asking for the julian day (001-366) of the last LMDATA file to be read in.

(4) "ACCUMULATOR LOAD TYPE WANTED"

The utility program is asking for the accumulator load type to be used.

(5) "TYPE IN NAME OF SMCT FILE"

The utility program is asking for the name of the file of SMCT numbers to be used.

(6) "TYPE IN NAME OF OUTPUT FILE"

The utility program is asking for the name of the EXT-SPSS file to be created.

UTL081

Description

UTL081 requires from the user the starting and stopping julian days of the LMDATA files to be read in and whether they are found on disk DB0: or DB1:, the accumulator load type to be used, the name of the file of SMCT numbers to be used, and the name of the EXT-SPSS file to be created. The program assumes the LMDATA files are stored in account [100,12] and have a year stamp of 83. The program reads in the LMDATA files, one SMCT number at a time. If the SMCT number is found in the file of SMCT numbers, then the first reading, for the load type wanted, is found and placed in a table. This continues until all LMDATA files are processed. The program then differences the first readings to get the daily sums and creates an EXT-SPSS file which contains for each SMCT number all the daily sums found.

Questions Asked

(1) "DATA FILES ON DB0 OR DB1 (0 OR 1)"

The utility program is asking if the LMDATA files are stored on disk DB0: or DB1:. If DB0:, type "0". If DB1:, type "1".

(2) "TYPE IN STARTING JULIAN DAY"

The utility program is asking for the julian day (001-366) of the first LMDATA file to be read in.

(3) "TYPE IN STOPPING JULIAN DAY"

The utility program is asking for the julian day (001-366) of the last LMDATA file to be read in.

(4) "ACCUMULATOR LOAD TYPE WANTED"

The utility program is asking for the accumulation load type to be used.

(5) "TYPE IN NAME OF SMCT FILE"

The utility program is asking for the name of the file of SMCT numbers to be used.

(6) "TYPE IN NAME OF OUTPUT FILE"

The utility program is asking for the name of the EXT-SPSS file to be created.

UTL082

Description

UTL082 requires from the user the starting and stopping julian days of the LMDATA files to be read in and whether they are found on disk DB0: or DB1:, the accumulator load type to be used, the name of the file of SMCT numbers to be used, and the name of the EXT-SPSS file to be created. The program assumes the LMDATA files are stored in account [100,10] and have a year stamp of 84. The program reads in the LMDATA files, one SMCT number at a time. If the SMCT number is found in the file of SMCT numbers, then the number of time slots that have data, the number of time slots that have data that passed validation, and the number of time slots that have data that did not pass validation, for the load type wanted, are found and placed in table. This continues until all LMDATA files are processed. The program then creates an EXT-SPSS file which contains for each SMCT number the three types of values found.

Questions Asked

(1) "DATA FILES ON DB0 OR DB1 (0 OR 1)"

The utility program is asking if the LMDATA files are stored on disk DB0: or DB1:. If DB0:, type "0". If DB1:, type "1".

(2) "TYPE IN STARTING JULIAN DAY"

The utility program is asking for the julian day (001-366) of the first LMDATA file to be read in.

(3) "TYPE IN STOPPING JULIAN DAY"

The utility program is asking for the julian day (001-366) of the last LMDATA file to be read in.

(4) "ACCUMULATOR LOAD TYPE WANTED"

The utility program is asking for the accumulator load type to be used.

(5) "TYPE IN NAME OF SMCT FILE"

The utility program is asking asking for the name of the file of SMCT numbers to be used.

(6) "TYPE IN NAME OF OUTPUT FILE"

The utility program is asking for the name of the EXT-SPSS file to be created.

UTL083

Description

UTL083 requires the name of the EXT-SPSS file to be read in,the name of the file of SMCT numbers to be used and their factors, and the load type to be used. The EXT-SPSS output file is given the same name as the EXT-SPSS input file. The program reads in the input file, one SMCT number at a time. If the SMCT number is found in the file of SMCT numbers and factors, then the factor found is used. If the SMCT number is not found, then a factor of 1 is used. The program will then add, subtract, multiply, or divide, the column of data with the load type given, by the factor. All the data for the SMCT number is then sent to the new EXT-SPSS file.

Questions Asked

(1) "TYPE IN NAME OF EXT-SPSS FILE"

The utility program is asking for the name of the EXT-SPSS file to be read in.

(2) "TYPE IN LOAD TYPE"

The utility program is asking for the load type to be modified.

(3) "CHOOSE OPTION

1. ADD FACTOR
2. SUBTRACT FACTOR
3. MULTIPLY FACTOR
4. DIVIDE FACTOR"

The utility program is asking whether the data values should be added, subtracted, multiplied, or divided by the factor.

(4) "TYPE IN NAME OF SMCT FILE"

The utility program is asking for the name of the file which contains the SMCT numbers to be used and their factors.

(5) "TYPE IN # OF COLUMNS"

The utility program is asking for the number of columns of data that are found in the EXT-SPSS input file. Column one is included.

(6) "IS COLUMN #1 A TIME STAMP (Y/N)"

The utility program is asking if column one of the EXT-SPSS input file is time or day stamps. If yes, type "Y". If no, type "N".

(7) "TYPE IN NUMBER OF ROWS (INCLUDING HEADER)"

The utility program is asking for the number of rows or records including header that are found for each SMCT number in the EXT-SPSS input file.

UTL084

Description

UTL084 requires from the user the names of all the input files that were created by UTL071, the name of the LPT type file to be created, the maximum and minimum value to be used when creating the distribution curve, and the number of groups to break the input data into. The program also needs to know which column of data, the user wants the distribution curve created from. The program reads in all of the input files, creates the distribution curve and a percentage distribution curve, and then sends both to the new LPT type file.

Questions Asked

(1) "TYPE IN COLUMN # WANTED IN INPUT FILE(S)"

The utility program is asking for the number of the column that the user wants a distribution curve for.

(2) "TYPE IN NAME OF OUTPUT FILE"

The utility program is asking for the name of the LPT type file to be created.

(3) "TYPE IN NAME OF INPUT FILE ('NO' TO FINISH)"

The utility program is asking for the name of the next file to be read in. When all files have been entered, type "NO".

(4) "TYPE IN MAXIMUM VALUE WANTED"

The utility program is asking for the maximum value to be used when creating the distribution curve.

(5) "TYPE IN MINIMUM VALUE WANTED"

The utility program is asking for the minimum value to be used when creating the distribution curve.

(6) "TYPE IN NUMBER OF GROUPS (1 TO 100)"

The utility program is asking for the number of groups to break the distribution of the data into.

UTL085

Description

UTL085 requires from the user the name of LMDATA file to be read in and its control period, the name of the file of SMCT numbers to be used, and the name of the output file to be created. The program reads in the LMDATA file, one SMCT number at a time. If the SMCT number is found in the file of SMCT numbers, the program will then calculate the number of time slots controlled during control period, the number of time slots not controlled during control period, the number of time slots that were suppose to be controlled, the number of time slots controlled outside of control period, and the percentage of time slots that were controlled during the control period. These statistics are then sent to the output file.

Questions Asked

(1) "TYPE IN NAME OF LMDATA FILE"

The utility program is asking for the name of the LMDATA file to be read in.

(2) "TYPE IN NAME OF SMCT FILE"

The utility program is asking for the name of the file of SMCT numbers to be used.

(3) "TYPE IN NAME OF OUTPUT FILE"

The utility program is asking for the name of the output file to be created.

(4) "TYPE IN CONTROL PERIOD (HH, MM, HH, MM)"

The utility program is asking for the control period of the LMDATA file. Type in the starting time by typing hours, comma, minutes, comma and then stopping time by typing hours, comma, minutes.

UTL086

Description

UTL086 requires from the user the name of the file that was created by UTL085. The program reads in the file, sums the column which contains the number of time slots controlled during the control period, sums the column which contains the number of time slots that were suppose to be controlled, and then calculates the percentage of time slots during the control period that was actually controlled. The result is printed on the terminal screen.

Questions Asked

(1) "TYPE IN NAME OF INPUT FILE"

The utility program is asking for the name of the file that was produced by UTL085.

UTL087

Description

UTL087 requires from the user the name of the LMDATA file to be read in, and the name of the output file to be created. The program will read in the LMDATA file, one SMCT number at a time. For each accumulator load type and each analog load type, the program will calculate the number of slots thrown out by validation, the number of slots not thrown out, the number of slots with some data, and the percentage of slots with data that were thrown out by validation. One record for each accumulator and analog load type is sent to the output file.

Questions Asked

(1) "TYPE IN NAME OF LMDATA FILE"

The utility program is asking for the name of the LMDATA file to be read in.

(2) "TYPE IN NAME OF OUTPUT FILE"

The utility program is asking for the name of the output file to be created.

UTL088

Description

UTL088 requires from the user the name of the input file created by UTL087, the name of the output file to be created, and the load type to extract. The program reads in the input file, one record at a time. If the load type of the record matches the load type supplied by the user, the record is sent to the output file.

Questions Asked

(1) "TYPE IN NAME OF INPUT FILE"

The utility program is asking for the name of the input file that was created by UTL087.

(2) "TYPE IN NAME OF OUTPUT FILE"

The utility program is asking for the name of the output file to be created.

(3) "TYPE IN LOAD TYPE WANTED"

The utility program is asking for the load type to be extracted.

UTL089

Description

UTL089 requires from the user the name of the LMERRS monthly file to be read in, and the year stamp to use for the EXT-SPSS files created. The program will read the LMERRS file one day at a time. At the completion of reading a day's worth of data, the program will create an EXT-SPSS file which contains the total number of errors in each time slot and the percentage of errors in each time slot. These files will be placed on disk DR1:, in account [100,10] and named NRERRSyy.ddd, where "yy" is the year stamp given and "ddd" is the julian day of the data in the file. When input file is completely read, then the program will create an extra EXT-SPSS file which contains the average total number of errors in each time slot and the percentage of errors for the entire month in each time slot. This file will be placed on disk DR1:, in account [100,10] and named NRERRSyy.MON, where "yy" is the year stamp given.

Questions Asked

(1) "TYPE IN INPUT FILE NAME"

The utility program is asking for the name of the LMERRS monthly file to be read in.

(2) "TYPE IN YEAR OF OUTPUT FILES (XX)"

The utility program is asking for the year stamp to be used when creating the names of the EXT-SPSS output files. For example, if 1982, hen type "82".